

SD Times

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SCO Files for Ch. 11 Bankruptcy

Novell, Red Hat and IBM are off the hook until SCO reorganizes

BY ALEX HANDY

The cavalry failed to come over the hill in time to save The SCO Group, which has filed for Chapter 11 bankruptcy. The move puts a halt on all litigation currently pending trial, and places SCO in a position to circle its wagons and plan its next move.

"We want to assure our customers and partners that they can continue to rely on SCO products, support and services for their business critical operations," Darl McBride, president and CEO of SCO, said in a state-

'SCO's filing of Chapter 11 is the final statement in a lesson which will long be remembered by the software industry.'

—Jim Zemlin, executive director of the Linux Foundation

ment. "Chapter 11 reorganization provides the company with an opportunity to protect its assets during this time while focusing on building our future plans." There were no further comments from SCO officials.

While McBride is hoping to reinvent the company, lawyers

at IBM, Novell and Red Hat are getting a breather. In March 2003, SCO filed its first anti-Linux lawsuit against IBM, and then followed up in August with a suit against Red Hat. The next year, AutoZone and Novell were both sued as well. These and other lawsuits alleged that the

Linux kernel infringed upon the intellectual property rights associated with Unix, which SCO claimed it owned.

But on Aug. 10 of this year, U.S. District Court Judge Dale Kimball ruled that Novell, not SCO, owned the rights to Unix. When he issued another ruling on Sept. 7 that denied SCO a jury trial in its case against Novell, the options for McBride and his company began to evaporate. SCO's Sept. 14 filing in U.S. Bankruptcy Court may have been driven by this case as much

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BEA's Future Outlined in Registry Repository

BY ALEX HANDY

SAN FRANCISCO — At his company's BEAWorld conference on Sept. 11, BEA CEO Alfred Chuang detailed his vision for a future based on metadata, customizable applications and Adobe Systems' Flex RIA platform. Chuang also announced a new partnership with Adobe to bring Flex into the hands of BEA Workshop users, and introduced a new version of the company's services registry.

The BEA AquaLogic Registry Repository 3.0 will track all of the services hosted within an organization, and will provide facilities for easier discovery and governance of those services. The software is built around BEA's metadata interoperability framework, which seeks to normalize the information that describes various software artifacts, and to automate the collection of such data.

Also included in the new version of the AquaLogic Registry Repository are best practices and governance capabilities designed to help corporate developers stay in step with one another. The registry's Eclipse plug-in was updated as well. The newly released registry repository will also work hand in hand with BEA's AquaLogic Enterprise Repository, based on

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ISO Says 'No' To Open XML As a Standard

BY DAVID WORTHINGTON

Microsoft's Office Open XML (OOXML) specification has been detoured off the ISO fast track amid accusations that highwaymen attempted to hijack the voting process.

On Sept. 2 the ballots closed, and the software giant failed to attain support from enough International Organization for Standardization (ISO) members for the fast-track approval of OOXML as an ISO standard. The proposal must be reworked for reconsideration next year.

OOXML is a family of document specifications for presenta-



Microsoft's Robertson believes that a second vote, set for February, will result in OOXML's approval.

tions, spreadsheets and word processing created by Microsoft, and is also known as Open XML. Ecma International ratified OOXML as ECMA-376 in December 2006 and submitted the standard to ISO/IEC JTC 1

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GlassFish Shatters Preconceptions

Sun's Java EE server gains clustering, same enterprise features as commercial offering

BY ALEX HANDY

Sun Microsystems is setting new bait, attempting to hook more business with its application servers. Version 2 of the GlassFish open source Java EE 5 application server was released for download on Sept. 17 at glassfish.java.net. At the same time, Sun Java System Application Server 9.1 was released, aimed at enterprises seeking corporate support for GlassFish. Both application servers now include improved clustering capabilities, faster performance and the benefits of collaborations

between Sun and Microsoft.

But Sun is now offering the same technology in each, making the choice more about licensing and support than feature sets. When Sun set out to create GlassFish version 1, the company's main goal was simply to build a reference implementation, explained Ken Drachnik, community development and marketing manager at Sun's open source group. Over time, he said, many enterprise-focused features appeared in the Sun Java System Application Server,

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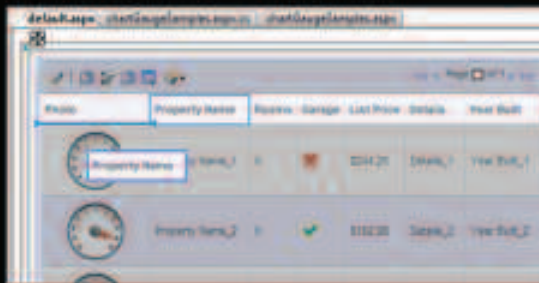
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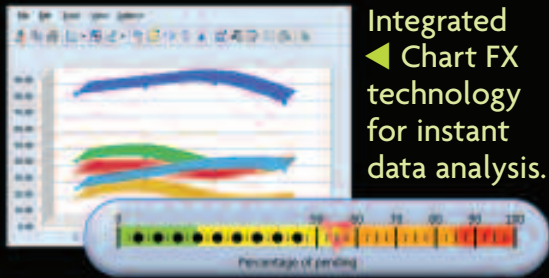
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Enable Your Web 2.0 Enterprise

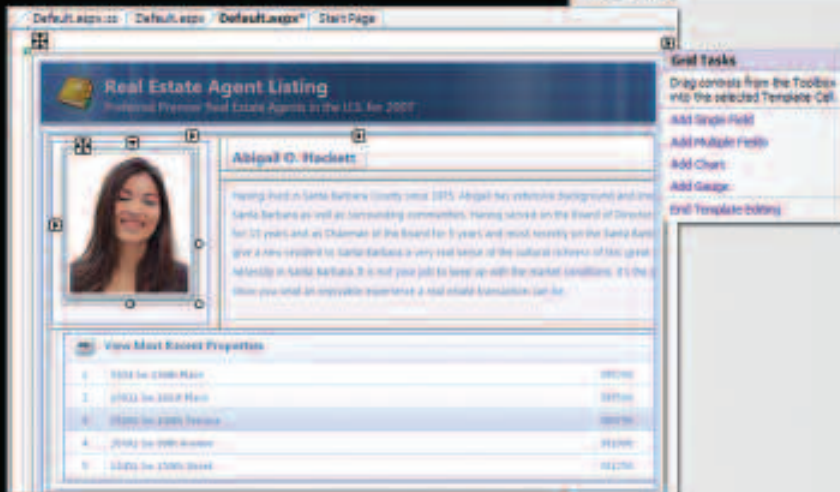


▲ Drag & drop grid elements within the Visual Studio 2005 design surface.

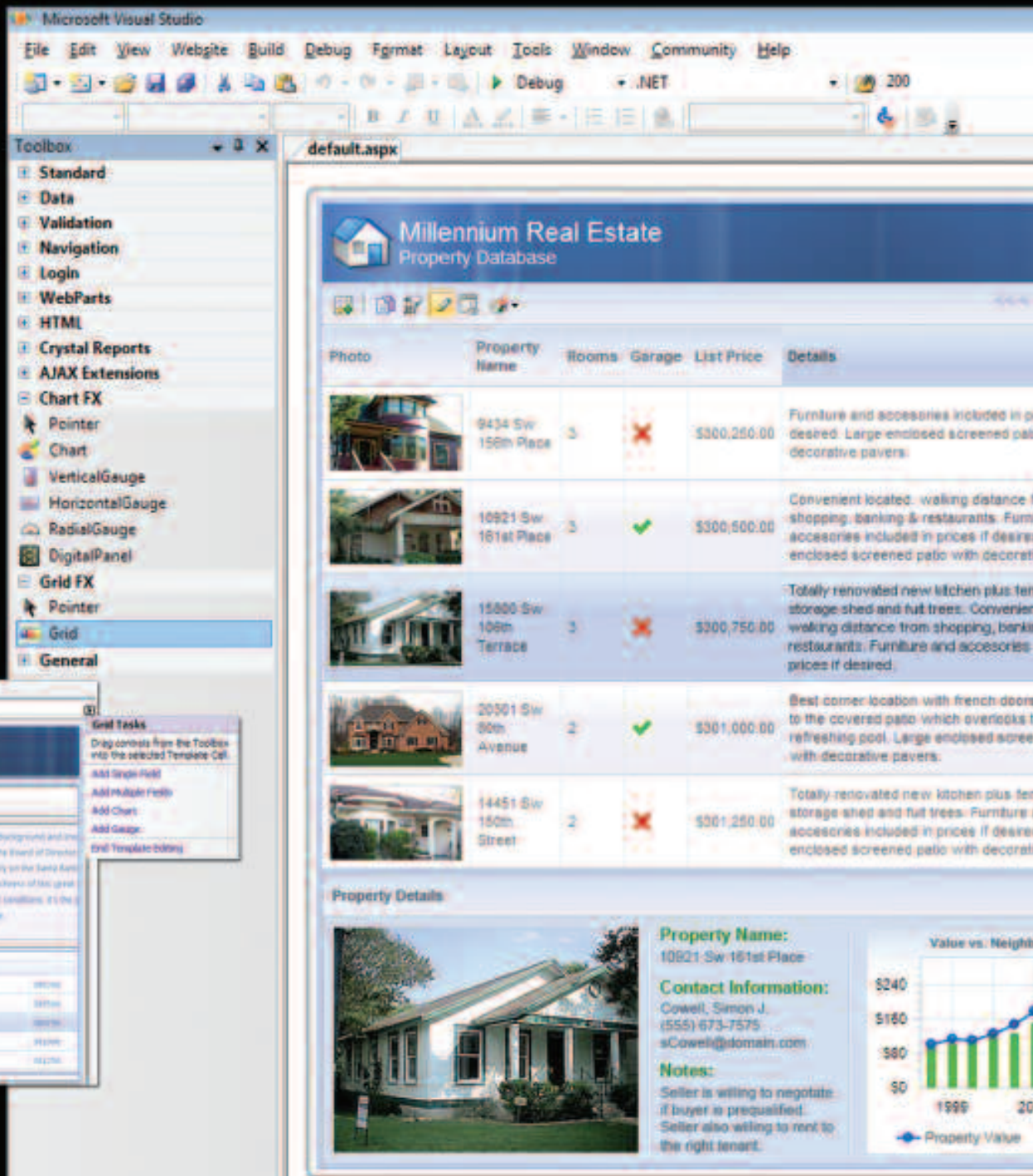


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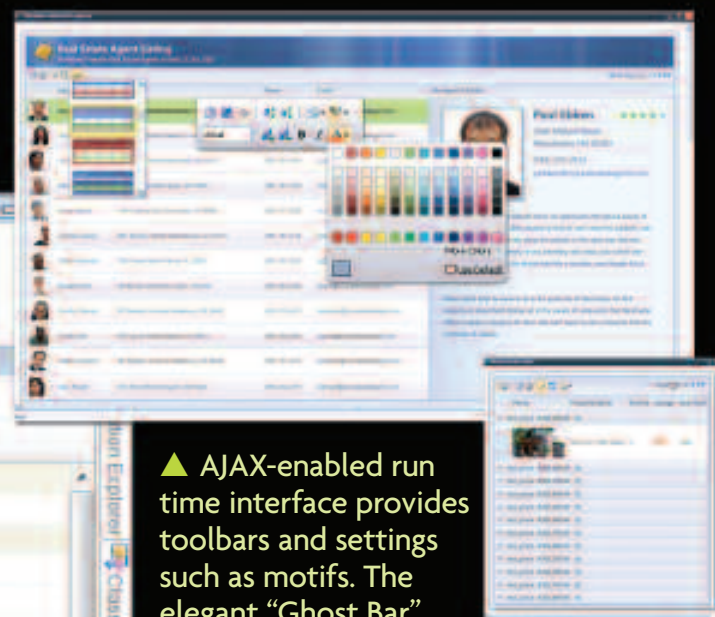
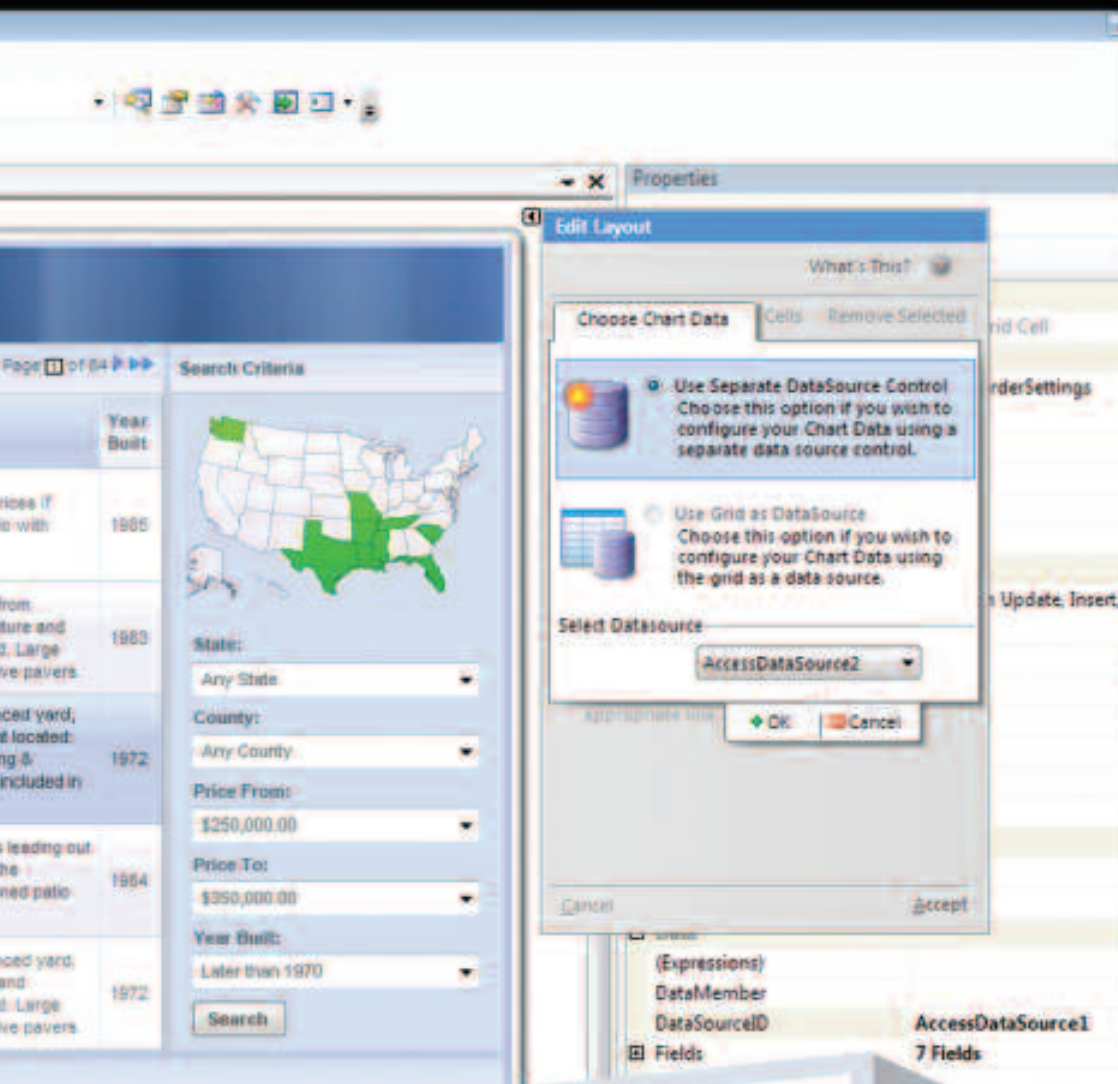
Enhanced Smart Tag Wizard provides most features to limit the need to access code or the properties grid. ▼



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▲ AJAX-enabled run time interface provides toolbars and settings such as motifs. The elegant "Ghost Bar" provides end users with features such as data copying, grouping, sorting & filtering, hide or show columns, plus font selection, size, style & color.

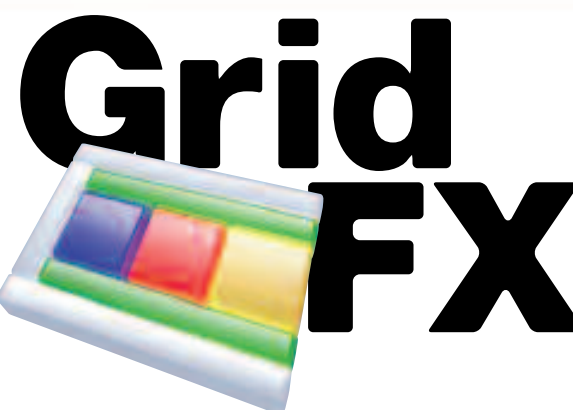


▲ Card views and master details



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States Split on DOJ's Microsoft Status Report

A contingent of states led by California is seeking to extend antitrust provisions

BY DAVID WORTHINGTON

The U.S. Department of Justice's report card is in, and the states are split on whether or not Microsoft's 2002 consent decree with the federal government has curbed its anticompetitive behavior.

The DOJ declared on Aug. 31 that the final judgments are succeeding in the goal of reinvigorating competitive conditions that Microsoft had suppressed. However, a group of states led by California told U.S. District Court Judge Colleen Kollar-Kotelly in Washington, D.C., that Microsoft's compliance with the terms of the antitrust settlement exerted minimal influence on its behavior.

The DOJ filing cites specific developments in the marketplace as evidence that the market was competitive, including the growing popularity of alternative Web browsers, Apple's iTunes and Adobe's Flash for handling multimedia content, the increased use of Web services over client apps, and decisions by some OEMs to offer computers preloaded with Linux.

"The final judgments have been successful in protecting the development and distribution of middleware products and in preventing Microsoft from continuing the type of exclusionary behavior that led to the original lawsuit," Thomas O. Barnett, assistant attorney general in charge of the DOJ's antitrust division, said in a statement. "The Antitrust Division has made enforcement of the final judgments an important priority and will continue to vigorously enforce the antitrust laws in computer software markets."

The states of Louisiana, Maryland, New York, Ohio and Wisconsin filed jointly with the department to resolve the antitrust case against Microsoft. California, Connecticut, Iowa, Kansas, Massachusetts and Minnesota, plus the District of Columbia, filed a dissent.

CALIFORNIA STEAMING

The California-led group stated that the success of the final judgment should not be measured by the extent of plaintiffs' diligence

or Microsoft's compliance. Rather, it emphasized what impact the judgment has had on competitive conditions. By that standard, the dissenters view it as a dismal failure because Microsoft's power remains undiminished with regard to key provisions of the judgment.

Specifically, the dissent cited provisions relating to middleware, and claimed Microsoft's market power is undiminished. The states contend that the only impact the judgment has had on Microsoft has been the cost of producing oft-delayed technical documentation.

The dissenting filing reads: "Microsoft's commingling violation has not been effectively addressed, Microsoft remains in possession of the fruits of its violation, and the competitive conditions antedating Microsoft's anticompetitive conduct have not been restored. The California Group will be prepared to discuss at the next Joint Status Conference what, if any, changes the Court might consider with respect to the remedy in this case."

The DOJ emphasized that the antitrust judgment was never designed to reduce Microsoft's market share, as it was not found to have increased its monopoly market share illegally. Therefore, the department is satisfied to permit most provisions of the settlement to expire in November, with the exception of the judgment related to protocol licensing that has been extended until November 2009.

Microsoft agreed to the extension, which was approved by the district court in 2006. Microsoft also agreed that the DOJ and state antitrust agencies may apply to the court in fall 2009 for an extension for all parts of the extended provisions of the final judgments for a period of up to three years, according to the department's filing.

Microsoft published a glowing assessment of the decree's effectiveness and assailed the California group's arguments, stating that the judgment was never intended "to bring about fundamental structural changes in the IT industry or to override choices made by consumers

about which PC operating systems or other software products they would use."

EXTENSION UNTIL 2012?

The California-led camp pleaded its case on Sept. 11 at the District Court's status meeting. The states requested that the provisions be extended five years until 2012, well into the tenure of a new U.S. administration that may hold a different view on regulation and relief.

The dissenting states have until Oct. 15 to formally present their request to Kollar-Kotelly by laying out their terms and rationale. At the hearing, the Justice Department and its supporting states requested more time to decide how best to respond to the California-led group's proposal.

Microsoft spokesman Jack Evans responded to the latest twist in the antitrust saga via e-mail: "We're a bit surprised that a few states are now requesting an extension of the consent decree, since they indicated just last month that they're not too fond of it." ■

BEHIND THE SCENES, SERVICES GIVE BOOST TO SAAS SUCCESS

BY JENNIFER DEJONG

As software as a service makes serious inroads, a sub-industry is quietly growing up behind it, making it easier for companies that sell software as a service to succeed.

SaaS enablement companies, as they are sometimes known, help SaaS providers address issues such as billing, performance analysis and technical support. And they may also supply more specialized services, such as bundling several SaaS products into a single offering, or tailoring existing software to suit the new delivery model.

"[Providers of] SaaS applications have to do things that [providers of] traditional, li-

censed applications don't have to do," said Treb Ryan, CEO of OpSource, which has an on-demand Web application delivery platform. First, there are the basic things: hosting the software so customers can access it on the Web, provisioning user accounts and passwords, delivering technical support, and making sure performance is up to par, he said.

The most sophisticated SaaS applications, however, do more than that. They make it possible for corporate customers to sign up and manage the billing process online, and also view performance metrics. That lets them see, for example, how long it takes the typical customer relationship management software

user to create a sales report, or the average latency that occurs when a video clip is played. When selecting a SaaS provider, "no one says, 'Who has the best billing system?'" said Ryan. "But if you don't have those things today, it's a detriment."

OpSource's OnDemand offering is aimed at ISVs and starts at about US\$20,000.

The key promise of SaaS enablement providers is to free software makers to concentrate on what they do best: developing and selling software, said WebAppCabaret president Gabriel Wong. That's particularly important for small software makers, he said. "They often lack the resources to manage servers, deploy applications and provision new users." WebAppCabaret's key offering of the same name automates those three tasks. It's aimed at small software makers that typically sell niche-specific software and serve relatively few customers, and starts at US\$200 per month for a single server.

The best SaaS offerings are written with the SaaS delivery mechanism in mind, said Navisite senior vice president of hosting Mark Clayman. The company offers hosting, performance and billing services for ISVs that "come to us with code in hand." And it also works with customers before they start coding, in much the same way that other application development service providers do.

Worldwide revenue for enterprise SaaS software is expected to surpass US\$5.1 billion this year, a 21 percent increase from 2006 revenue, according to research firm Gartner. Jamcracker aims to capitalize on that growth by bundling SaaS products from several software makers into a single offering, said company vice president of marketing Steve Crawford. The company combines e-mail, anti-virus and back-up software, for example, as a package that can be provisioned, deployed and supported as a single offering.



In the future, software will have to be available online, according to OpSource's Ryan.

OpSource's Ryan said that while "change never happens as fast as we think it will," the recent growth in the SaaS market marks the beginning of a big shift in how software is sold and used. "The upcoming generation doesn't do anything they can't do online," he said. But 10 to 15 years down the road, these kids will be in business. "And any software they use will have to be online." ■

HELP IN MOVING TO THE SAAS MODEL

SaaS enablement providers ease the job for ISVs by:

- Provisioning user accounts and passwords.
- Monitoring usage and managing billing.
- Analyzing performance and reporting relevant metrics, such as how long it takes an application to carry out key transactions.
- Offering tech support for end users.
- Providing a range of application development services.

CollabNet Platform 'Fulfills What ALM's About'

Maker of Subversion tries to nudge its way into application life-cycle market

BY JEFF FEINMAN AND
DAVID RUBINSTEIN

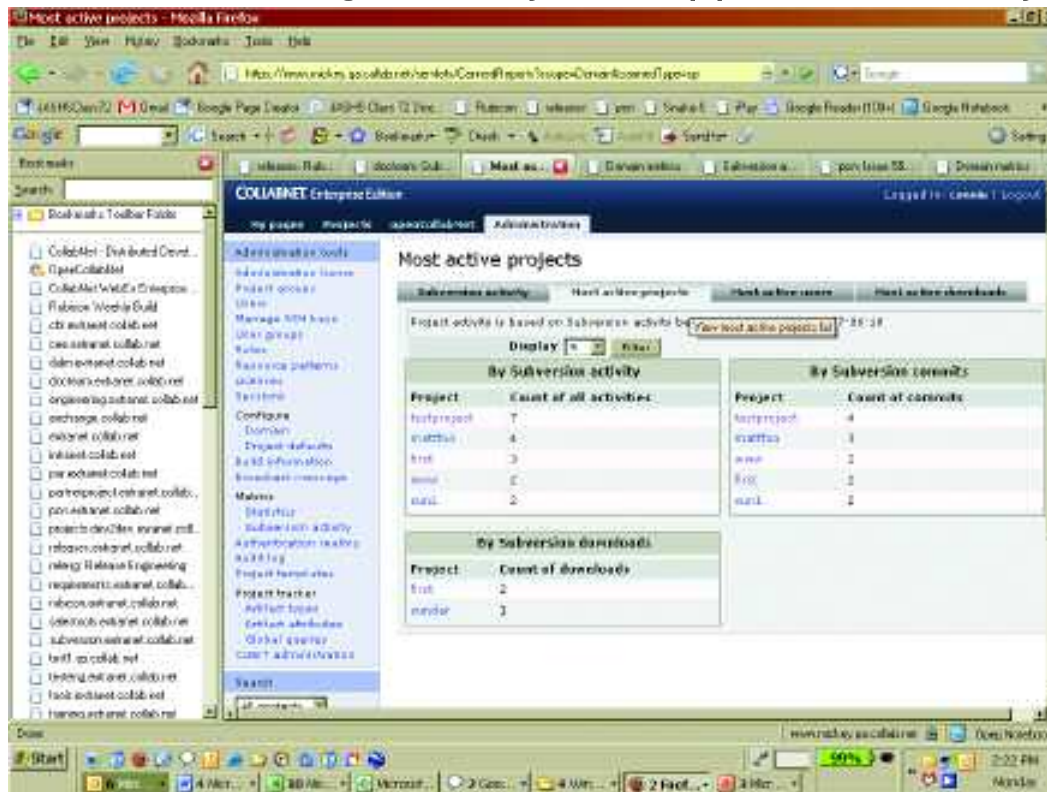
CollabNet in September released version 5.0 of CollabNet Enterprise Edition, which CEO Bill Portelli is calling a push into ALM—or, as Portelli prefers, software development life cycle.

"ALM for me is synonymous with tools, people and process," he said. "But flexibility is needed to manage the development life cycle. When we thought about ALM, we realized most folks want a process that assists them, but doesn't get in their way or harness them."

What separates CollabNet in the space, Portelli said, is the technology's foundation in openness and being distributed. The Enterprise Edition can be customized to an organization's process, design goals and objectives, he added.

When users start projects with this software, they can choose from three different process libraries—one for distributed agile development, one based on the Eclipse Unified Process, and a baseline process based on peer review. Then, any of those can be customized via wiki-style editors, the taxonomy can be changed, and it can be locked down and stored, Portelli explained.

Yet many people think of ALM more in terms of tools than they do process; Portelli



With its new reporting capabilities, CollabNet Enterprise Edition can give project managers information on which projects are used most often.

emphasized that CollabNet is an open framework into which third-party tools can be integrated. He also noted that CollabNet already has the Subversion software configuration management built in, as well as an issue tracker for defining and capturing requirements, and a project and task management tool.

In addition, CollabNet offers CUBiT, a virtualization

platform that development teams can access and work in with their own build setups.

The new version of CollabNet Enterprise Edition has an API to enable users to gather information regarding projects. New reporting capabilities in the tool can gather more information from artifacts. It is the first release that brings some of the core transaction data that is captured in

Subversion, and users can report on that, said Isabelle Dumont, senior vice president of product marketing. Users can track the level of activity on their repositories and check code in and out.

"Part of the reason we did that is to bring [these reporting capabilities] into the CollabNet desktop," Dumont said. "It's almost like we're developing a new interface that makes it visi-

ble to the Eclipse environment, and we are bringing some of the artifacts and management capabilities to the desktop."

CollabNet Enterprise Edition allows customers to integrate outside tools, such as HP Quality Center, which can bring the QA team management capabilities. "We've worked with a lot of our customers, like Oracle, on their processes. A lot of companies that are very sophisticated around ALM already have processes defined, so what they've done is put that into a platform."

CollabNet brings in a framework for companies to streamline the development infrastructure. Dumont said that a lot of the company's customers find that they might have 10 or 15 different SCM tools being used by teams throughout the organization. When looking to reduce that number to two or three tools, Subversion is usually on that short list, she said.

Regarding the move into ALM, Dumont said, "It has all the components needed to fulfill what ALM is about. We have ALM templates for the RAD methodology, for the agile methodology, and we have some key customers building their own templates and talking about sharing that back with the community of CollabNet users." ■

Kovair Links Disparate Tools

With ALM 2.0 in mind, company releases Omnibus Integration Bus for IT

BY JEFF FEINMAN

Specialized ALM tools can often benefit from connections with one another. Kovair Software has created Omnibus Integration Bus for IT, which can integrate disparate ALM tools from different makers.

Omnibus, which was announced on Sept. 17, serves as a linking tool between different aspects of the application life cycle, including requirements management, project and portfolio management, and change management.

Sky Basu, Kovair's CTO, explained that the

Web services-enabled Omnibus "can bring different tools running on disparate hardware and software platforms together-

er even when they are physically located anywhere in the world."

According to Basu, Omnibus

offers the ability to drastically reduce the number of integrations necessary among individual tools. Products that Omnibus

can work with include HP Quality Center, Perforce, Visual Studio and Visual SourceSafe, Basu said.

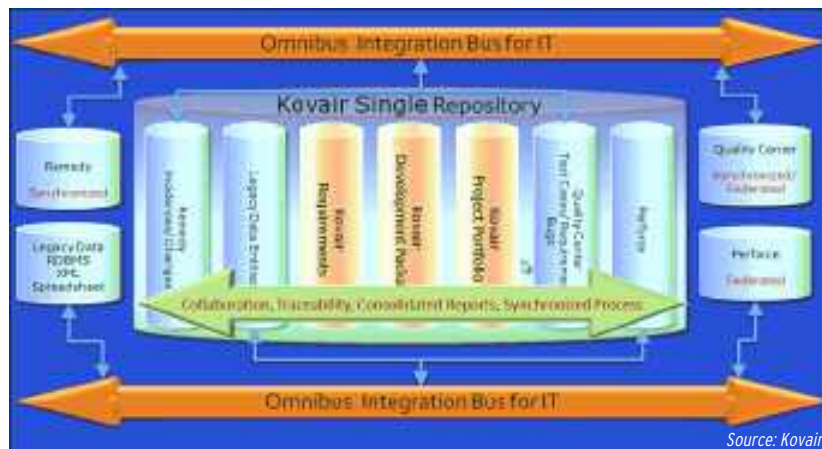
Omnibus also provides a process automation engine and integrated data repository for management reporting and traceability functions.

"One of the big problems is that there is no real integration among tools," Basu said. "Even when a vendor says... 'We have integration between our

own tools,' it's not a very good integration. That's one of the big problems in the industry—there are lots of tools, but the tools don't talk to each other."

Kovair has adopted Forrester senior analyst Carey Schwaber's concept of ALM 2.0, which preaches the virtues of bringing processes and tools together, and giving developers the ability to pick and choose features from different tools. In this view, ALM 2.0 focuses on the integration between tools, rather than the tools themselves.

"Once you have that integration, there are three areas which have to be delivered across these tools," Basu said. "The first one is the process, the second is traceability across these tools, and the third is reporting." ■



Omnibus Integration Bus for IT can link ALM tools running on disparate platforms.



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THE CONVERGENCE OF DOCUMENTS, MEDIA, AND APPLICATIONS

Silverlight Goes Gold; Support Extended to Linux

BY DAVID WORTHINGTON

Microsoft has decided that it is high time for Silverlight to shine, in every corner. The final bits of the Silverlight 1.0 runtime became available for download in early September, and Microsoft gave assurances that a fully supported Linux port is forthcoming.

The Silverlight platform, which was unveiled in May at MIX07, is a plug-in that works with multiple Mac OS X and Windows Web browsers; Firefox, Internet Explorer and Safari are supported.

Silverlight, formerly known as Windows Presentation Foundation (WPF) Everywhere, implements facets of WPF, the graphical subsystem of .NET 3.0 and part of Windows Vista, to provide animation, vector graphics and video playback capabilities for the Web.

The 1.0 release is Silverlight's most primitive distribution and does not contain Common Language Runtime (CLR), as version 1.1 does. Silverlight 1.1 features the slimmed-down Core CLR, which has been optimized for the Web.

The September preview of Silverlight 1.1 also became available to developers in September. It delivers various bug fixes and performance enhancements, and includes support for Language Integrated Query (LINQ).

Microsoft chief software architect Ray Ozzie ushered in Silverlight, stating that developers and designers can use Silverlight to deliver high-definition experiences to individuals by integrating data and services in rich and unique

ways. Ozzie predicted that Silverlight would accelerate the growth of rich interactive applications on a variety of devices.

A partner initiative was launched in conjunction with today's releases. Microsoft is attempting to build an ecosystem around Silverlight by partnering with content delivery providers, design agencies, solution providers and systems integrators.

A DANCE IN THE PALE MOONLIGHT

In addition, Microsoft has embraced Novell's Linux port of Silverlight, dubbed Mono Moonlight. Parimal Deshpande, a group product manager in Microsoft's UX Platform and Tools group, said that customers have asked for a Linux port of Silverlight, and noted that they will get it. But only Novell will support the implementation, Deshpande noted.

Miguel de Icaza, vice president of developer platforms for Novell and leader of the Mono project, said that the Moonlight implementation of Silverlight 1.0 is slated to ship in March 2008, and that the goal for Mono is to ship a port of Silverlight 1.1 fairly quickly after its Windows counterpart is released. "Today we have parity with 1.1," de Icaza wrote in an e-mail.

"The [Silverlight] experience will be identical on Linux. It is our intent—based on [customer] feedback—to support Linux, and we do expect to support it for the foreseeable future," said Deshpande.

As first reported by SD Times, Microsoft has nurtured the development of Moonlight since its inception.

At the time, de Icaza said that Microsoft donated its opinion and guidance on how to build a Mono-based implementation of Silverlight that runs on Linux. Scott Guthrie, general manager within the Microsoft Developer Division, collaborated with de Icaza, and according to de Icaza, strongly inspired the project with his recommendations.

de Icaza itemized the conditions of Novell's agreement with Microsoft in his blog shortly after Silverlight became generally available. According to de Icaza, Microsoft will give Novell access to test suites for Silverlight to ensure that Mono has a compatible specification, provide access to the Silverlight specifications beyond what is published onto the Web, and make codecs for audio and video available to users of Moonlight from Microsoft's Web site. ■

MICROSOFT'S SILVERLIGHT LINEUP

Already, Microsoft has picked up a broad spectrum of early adopters including ISVs, media companies and systems integrators, as well as companies making tools for Silverlight.

Those pledging their support include: Advection.NET, Akamai Technologies, Anystream, Blitz, BUYDRM, CacheLogic, Cynergy, EdgeCast Networks, Electric Rain, Granicus, IdentityMine, Inlet, Internap, iStreamPlanet, Level 3's content markets group, Limelight Networks, Liquid Compass, MPS Broadband AB, Narrowstep, Pinnacle, Resolute, REZN8, Schematic, Skinkers, Sonic Solutions, Tarari, Telestream, Twofour Digital, VeriSign and Winnov.

Source: Microsoft Silverlight RTW Third Party Quote Sheet, Sept. 5



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NEWS BRIEFS

COMPANIES



The **Mozilla Foundation** on Sept. 6 registered the 400 millionth download of the Firefox Web browser . . . **TIBCO Software** released version 3.5 of the Web-based General Interface development environment. The new version includes various speed increases, including better performance under Internet Explorer 6 . . . SOA analyst firm **ZapThink** has acquired the **Linthicum Group**, a consulting firm also focused on SOA. As part of the move, SD Times columnist David S. Linthicum joins ZapThink. The company will now offer SOA advisory that includes understanding, defining and implementing enterprise SOA and product strategy guidance . . . **IBM** has teamed with **Strikelron**, which distributes live data over the Web, to deliver Strikelron's Web services via IBM's QEDWIKI enterprise mashup builder. Strikelron is publishing seven widgets on IBM's alphaWorks Web 2.0 content repository server for public use, including widgets that deliver programmatic communication to contacts via text messaging, and enable driving directions to be integrated in any application.



NEW PRODUCTS

A new **Adobe Flex SDK** for the Lightstreamer real-time text data distributing tool has been released, with the goal of developing Lightstreamer clients based on Flex and Flash technologies. The new Flex SDK features a native ActionScript3 library that communicates with the Lightstreamer Server and offers a high-level API . . . Microsoft has unveiled the Works with **Windows Server 2008** certification program, which establishes baseline application compatibility with the Windows Server 2008 operating system; a Certified for Windows Server 2008 logo is awarded to validated applications. Microsoft said that the program is open to independent software vendors, while system administrators can also use the tools to test their applications, whether developed in-house or purchased.

UPDATES

ALM provider **Polarion** has released **Polarion ALM for Subversion 3.0**. The new release offers enhanced dashboards and metrics, and an open API for integrating the product with other tools. It comes in three editions: Team for developers, Enterprise for project managers, and Multisite that can replicate repositories . . . **REAL Software**, a provider of cross-platform application development tools, has released version 4 of **REALbasic 2007**. The latest version of the tool includes Ubuntu support, faster ODBC execution and enhanced debugging with properties that simulate command-line arguments . . . **Indigo Rose**, which offers



software development life-cycle management tools, has released **TrueUpdate 3.0**. It allows programmers to integrate an automatic updating feature into applications and includes automatic firewall and proxy server negotiation, a stand-alone client, and a project wizard that offers help . . . Developer Express has announced **Refactor! Pro 2.5**, the company's IDE productivity tools for Visual Studio that focus on efficiency and speed of coding. The new version has code refactorings aimed at C#, such as extracting XML literals as resources.

PEOPLE

Richard Faint was named president and CEO of Solstice Software, a provider of automated end-to-end testing of integration and SOA. Faint, who was already serving as chairman of the board, has served in CEO positions with Impact Labs, a Maryland-based software company, and Sequoia Software, an XML-based portal software provider that was acquired by Citrix Systems in 2001 . . . Hewlett-Packard has created a new Web Services and Software unit within the Images and Printing group, and named former Mercury Interactive CFO **David J. Murphy** as the department's head. Murphy will serve as SVP of the unit, which will drive Web services and software applications for monitoring printing as content moves from the desktop to the Web. ■

AJAX-Based Web 2.0 Ready for Takeoff

New research shows strong interest in rich Internet application development

BY ALAN ZEICHICK

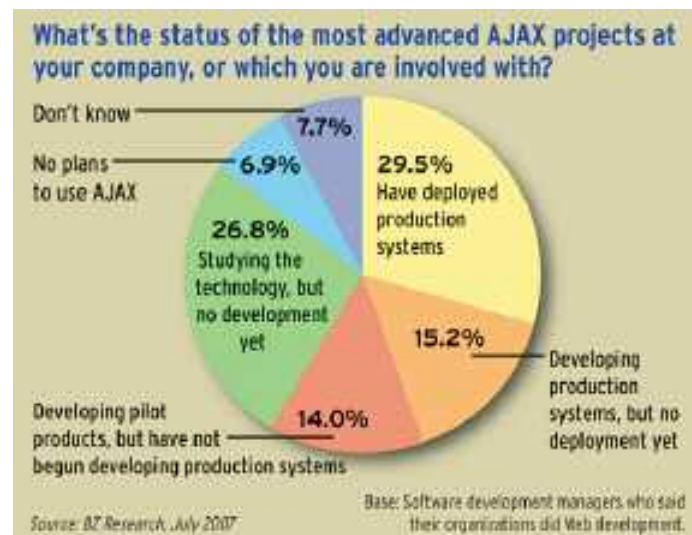
Nearly four out of five organizations that are doing Web development are using, or planning to use, Web 2.0 or rich Internet application technologies—and specifically, AJAX. That's according to a study conducted in July by BZ Research.

BZ Research, like SD Times, is a part of BZ Media. This particular study had responses from 574 software development managers, 510 of whom said they were involved in Web development. For this story, the results were filtered to consider responses only from those 510 individuals.

When asked if they were using, or planning to use, AJAX-based Web 2.0 or RIA technologies, 78.5 percent said they were, 9.7 percent said they weren't, and 11.8 percent did not know.

AJAX "allows us to move otherwise costly server-side processing down to the client; allows us to decouple UI and Backend; provides flexibility," said one respondent, while another said that it offers "great client side experience for a complex Web mapping application, easy to create parallel processes that tie in code behind with client side code."

One respondent, who supports a school district, wrote that AJAX offers "enhanced usability for a user-base of hundreds of thousands of children



and teachers. (Every full-page refresh is a needless opportunity for them to become distracted.) Shift some of the rendering to client machines—there are way more of them than our servers!"

However, for most organizations, deployment is still off in the future. When asked about the status of the most advanced AJAX projects at their companies, only 29.5 percent said they had actually deployed a production system. Another 15.2 percent were developing production systems, 14.0 percent were building pilot systems, and 26.8 percent were still studying the technologies and issues.

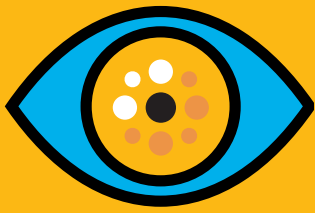
As occurs so often with development platforms, there was a split between the Java world and the Microsoft world. The most popular application

platform being used for AJAX (or being considered for future AJAX projects) was Java/Java EE, selected by 55.7 percent of respondents, followed by Microsoft ASP.NET/Atlas by 44.7 percent. Other popular platforms were PHP, at 25.9 percent, Adobe's Flash, at 21.8 percent, and Ruby on Rails, at 12.1 percent.

The respondents were also asked, "Other than JavaScript and XML, which languages will you be using for AJAX-based development?" The most popular was Java, at 54.5 percent, followed by Microsoft's C#, at 35.8 percent, PHP at 27.6 percent, Visual Basic/VB.NET at 24.3 percent, Flash/ActionScript at 19.7 percent, and VBScript at 13.7 percent. C/C++ and Ruby were tied at 11.5 percent.

Of course, not everyone is a fan of AJAX as the solution for developing rich Internet applications. "AJAX is too complex. Browsers are not a proper platform for RIA—on the contrary they are an obstacle and AJAX is supposed to be the way to circumvent around the obstacles of the browser. True RIA is a browser-free solution," said one. Another offered a more practical concern: "Sometimes AJAX can introduce usability issues, since it 'breaks' the simplicity of the Web applications, so we are not going to use it on every project." ■





Can you achieve application quality without application security?

Many companies are under the impression that testing for web application security simply involves a cursory check for easy-to-guess user names and passwords. Yet application security testing can and should involve more complex audits, such as testing for SQL injection and cross-site scripting vulnerabilities. Often this sort of review does not happen until the web application is in production, when it is too late to stop a hacker or a malicious program from attacking and much more expensive to remediate the vulnerability.

While quality assurance (QA) departments have traditionally focused on functional or performance testing—it is a clear trend that QA is becoming a critical participant in application security testing.

Are you ready for security testing?

There are three ways that your QA department may become involved with web application security testing:

- Your company's web security experts may request that application security testing be done by the QA group to ensure that all fixes have been implemented and no security holes exist prior to releasing the product to production.
- Your compliance officer—facing concerns about Sarbanes-Oxley (SOX), Health Insurance Portability and Accountability Act (HIPAA), payment card industry (PCI), etc.—may request that further application security testing is performed during the QA process.
- Your QA department may request involvement with testing for web application security, because an application with potential security holes is not going to be perceived as high-quality by users.

No matter how the department gets involved, certain steps will need to be taken to establish the application security testing process. It will need to be determined whether there will be specific, dedicated staff members who will be performing web application security testing, or whether the task will be dispersed throughout your entire QA group. In addition, the timing of web application security testing during the QA process will need to be managed. Ideally, application security testing will be performed as early as possible, so that developers can fix any security issues in a timely manner without compromising the project's schedule. Finally, the right software for application security testing will need to be selected and implemented.

The right approach to application security testing

The QA department will need application security testing software that is able to perform three different types of testing to determine the vulnerabilities inherent in each user class: as a non-authenticated user, an authenticated user, and an administrative user. Additionally, the web application security tool should be able to perform both automated and manual crawling/spidering of your web application.

Automated application security testing software will spider the entire application by clicking every button and link, filling out data fields to identify the structure of the program, and then auditing each page for vulnerabilities. It should do this from the outside in, reviewing each portion of the site the way an external hacker might. This comprehensive approach is valuable to ensure that all security holes have been

identified and can be fixed. On the down side, it can also produce false positives, and it may not be able to access all of your web pages due to the way that certain pages are coded.

Manual testing allows a user to focus on specific pathways or tasks on a website while the software follows silently behind, tracking the process. The program can then audit the particular path that the user has taken for security vulnerabilities and provide a report. Manually crawling an application can be time consuming, but it also ensures that specific pages are tracked and analyzed.

Choosing the right products

The following basic questions should be addressed when you are looking for a web application security testing product:

- How easy is the product to use?
- What kind of training will your QA department require in order to properly use the product?
- How well does the product integrate into the tools and software that are already used by your organization?
- How often is the product updated with new security checks—daily, weekly, monthly?
- What is the false positive rate of the product? While no product is perfect, you want to find a product with as low a rate as possible so that your resources are not wasted going through false positives.
- How well does the product integrate with leading quality management platforms?
- Does the product appear to evaluate each page of your application or does it get stuck on certain pages?
- Does the product allow the end user to easily modify scan settings?
- What kinds of restrictions are in the product's license?
- In which formats are reports offered (PDF, HTML, XML)? Are they easy to read? Do they contain information on the location of the vulnerability, how to execute it, how to verify it and how to fix it?
- Will the company allow you to evaluate the product before committing to purchase it? Confident vendors will often provide a seven- to 15-day evaluation period.

HP Software makes it easy

Leading the charge in application quality and security, HP Software has recently completed the acquisition of SPI Dynamics, the leader in web application security testing. SPI Dynamics technology, which is already seamlessly integrated with HP Quality Center software, enables organizations to assess security vulnerabilities along the entire lifecycle of web applications—including development, QA and operations. Customers can also use SPI Dynamics software to validate application security and quality to meet auditing and compliance requirements, such as SOX.

To find out more about HP Software's integrated solutions for Application Quality and Security, please visit www.hp.com/go/software



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Compuware Consolidates Developer Efforts

Product teams in Massachusetts, Australia, Ireland headed to Detroit, reducing operations costs

BY JEFF FEINMAN

Compuware is planning on centralizing some development efforts and thereby eliminating approximately 100 jobs by the

end of February, company officials said last week.

Compuware says it expects the job cuts will cost about US\$4 million, with about half of

that going toward severance costs. However, the company estimated that the move would decrease its operating costs by \$13 million per year.

"This is part of a larger effort, to maximize the benefit we could get from bringing together a lot of our technical development effort, and it's also

to reduce operating expenses by \$100 million [in 2008]," said Doug Kuiper, director of communications and investor relations for Compuware.

Kuiper confirmed that the positions being cut are within the company's product development and technology staff.

The company also plans to relocate some of its product development workshops and teams. The Strobe application performance management product team will move from Cambridge, Mass., to Detroit. Compuware's Vantage Service Manager and its Optimal Trace product teams will also relocate to Detroit, from Sydney and Dublin, respectively.

SECOND CUTBACK THIS YEAR

This action is far from Compuware's biggest job cut. Back in June, the company eliminated nearly 250 employee positions as part of a similar product realignment. In 2001, more than 1,000 employees were cut, Kuiper noted.

"Compuware has been doing a lot of cutting back lately," said Thomas Murphy, an analyst with Gartner. "I don't have a good read yet on if there [are] general health issues, or if they are just getting refocused and cutting their losses."

Murphy said that Compuware's testing group, which he has covered a fair amount recently, seems to be on a good path, although it has seen revenues go down in product suites such as the company's DevPartner debug and testing tools.

When asked if the company will eventually homeport all of its development operations in Detroit, Kuiper noted that development operations in Toronto and Amsterdam continue, and that there are no plans to consolidate those facilities. He added, "We recognize that it's difficult for the employees impacted. But there are such substantial technical and business benefits from this consolidation that the company just couldn't ignore those benefits."

In a filing with the U.S. Securities and Exchange Commission, Compuware said that its shareholders approved its 2007 long-term incentive plan at the company's annual shareholders meeting on Aug. 28. ■

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Microsoft and Sun Further Partnership

The rivals will create initiatives to support interoperability between their environments

BY DAVID WORTHINGTON

Interoperability can make strange bedfellows. In September, Microsoft embarked on several strategic initiatives with Sun Microsystems and delivered on its promise to set up shop with Novell.

Sun is no longer exclusively a Linux and Solaris shop: It has signed on as a Windows Server OEM and will sell Windows Server 2003 running on its BAMD- and Intel-based x64 hardware; Microsoft will make the software available within 90 days. The companies will also support each other in virtualized environments.

Microsoft and Sun will work together to test and validate Windows on Sun's server and storage products, while Sun will expand its presence on Microsoft's Redmond campus with a new interoperability center. (See "Microsoft, Novell Open Joint Facility," page 30.)

The interoperability center will support customers running joint Microsoft-Sun solutions in areas such as database, e-mail and messaging, Remote Desktop Protocol support in the Sun Ray thin clients, and virtualization.

SUN'S INTERESTED IN IPTV

Sun has a specific interest in Microsoft's IPTV technologies, and will work with Microsoft to advance and promote deployments of the Microsoft Media-room IPTV and multimedia platform on Sun's hardware.

"Sun is now a single source for today's leading operating systems—Solaris and Windows—on the industry's most innovative x64 systems and storage products. Customers can now take advantage of the virtualization benefits of Windows and Solaris on Sun's energy-efficient x64 systems," said Sun's John Fowler, systems group executive vice president, in a prepared statement.

Fowler later noted during a phone conference with the press that all of Sun's customers use both Solaris and Windows.

Solaris will not fall by the wayside in the rivals' nascent partnership: Microsoft and Sun will collaborate to certify Solaris as a guest operating system on Microsoft virtualization technologies.

There will be a joint support

solution between the companies for customers virtualizing Solaris.

Microsoft is expected to deliver a Community Technolo-

gy Preview of its Viridian hypervisor when it distributes a release candidate of Windows Server 2008 to testers later this year. Windows Server 2008 will

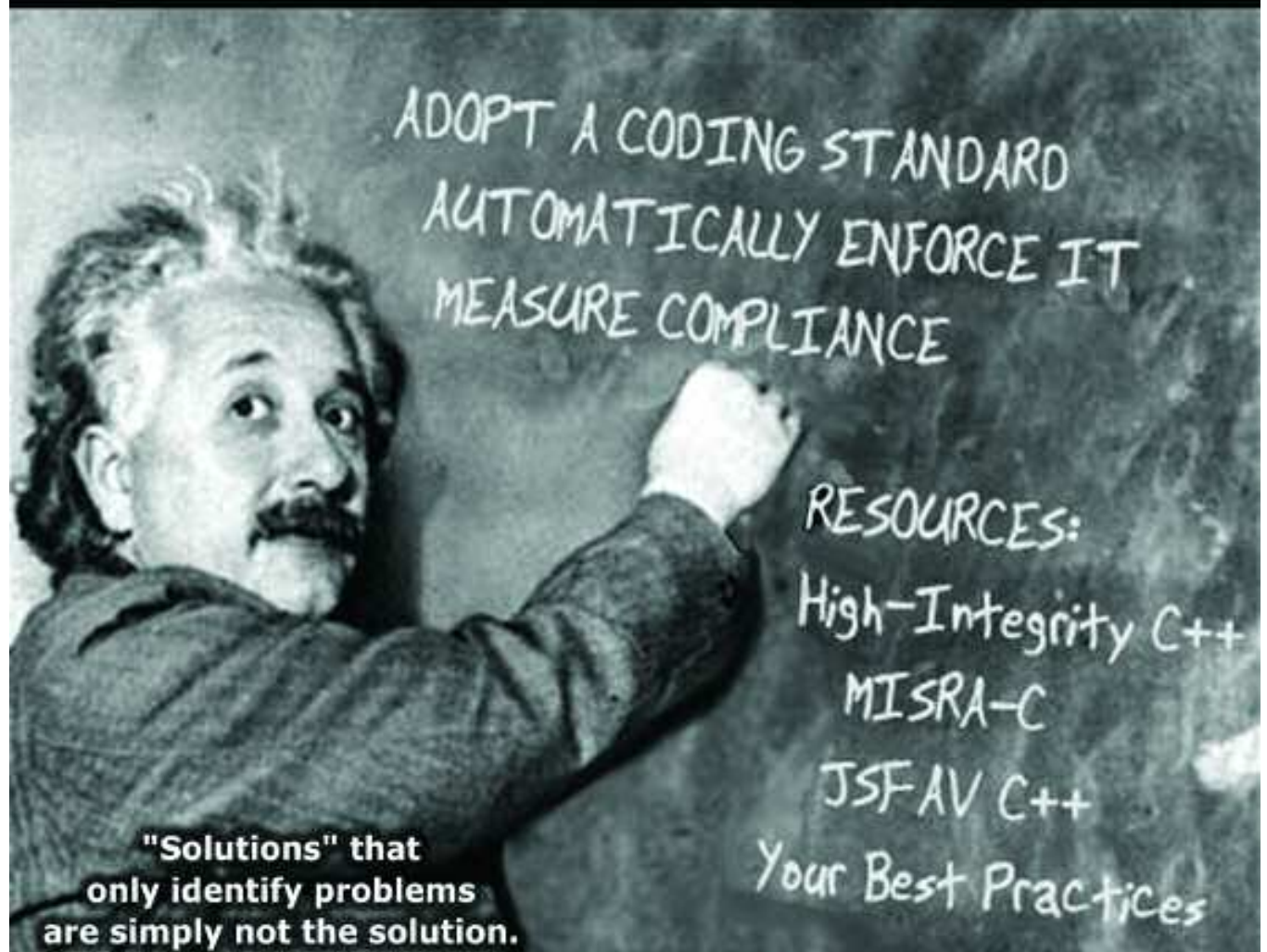
include a beta version of Viridian when it ships in 2008.

The companies began collaborating on interoperability in 2004 and since then have

worked on such issues as identity management, systems management, thin clients, Web services and Windows Server engineering. ■

Intellectuals solve problems.
Geniuses prevent them.

— Albert Einstein



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Applications Aren't Dead Yet

Rumors of demise at the hands of Web 2.0 have been greatly exaggerated

BY ALEX HANDY

With the Web semiofficially standing at revision 2.0, it's only natural that the office would follow suit. Just exactly what the next-generation office will look like was the topic of much discussion when the Office 2.0 conference convened in San Francisco at the beginning of September. Throughout the show, there was a constant debate between those expecting the software-as-a-service (SaaS) revolution to kill large-scale enterprise applications, and those expecting an equilibrium to be established, which came to a head in a panel titled "Death of the Application."

Rajen Sheth, a product manager at Google, said that massive enterprise applications aren't vanishing or being replaced; they're simply evolving. "There's kind of a reforming of what the application really is all about. Rather

than launching a new project every year to deploy new software and upgrade the technology, it's become more of an iterative thing," said Sheth. "You have to stay on top of what innovates. You can't afford to write new applications all over again."

Ramana Rao, CEO of the stealth start-up iCurrent, said that the Web was simply making enterprise applications more transparent rather than killing them off entirely. "In the early days of any tool or concept, you're explicitly aware of touching it. Then, eventually, you forget. You think, I'm chatting with someone—who cares if it's AIM or Yahoo?" said Rao. "What you care about are the things you're trying to get done: to create documents, to create transactions. The stuff in between starts to become transparent."

Rao surmised that the future wouldn't be built on top of singular massive applications, but rather on smaller ones that can be mixed and matched within Web pages, or inside desktop applications. Massive software suites that do everything, he said, may be what's dying, rather than the application as a whole.

Danny Kolke, CTO of on-demand application provider Etelos, noted that users see choices today that didn't exist a few years ago. He said that the data behind the applications is what matters, and the way users access that data is becoming more and more irrelevant.

As an example, he cited his own need to view Microsoft Word documents.

Kolke said that he needed to see and edit these documents, but he didn't actually need Word to do so. Thus, as an end user, Kolke didn't need to consult with his IT cohorts before deciding what word processor to use—he made the decision and explored other options on his own.

Coghead CTO Greg Olsen, also representing a Web-based application business, agreed with Kolke, explaining that working in large enterprises now requires less internal application training.

"I remember going to work at Lockheed Martin, where you had two weeks of training on their internal applications. That notion, to me, is gone," said Olsen, adding that he hopes to reach the point where new hires come with their own laptops and use their Web browser to interface with internal applications. This model, he said, requires little to no training be-

cause Web apps all have the same interface paradigms: Point, click, type.

Google's Sheth sees the main impetus for this change coming from user desires. In the past, he said, the IT managers had all the power when it came to choosing applications and interfaces. Now, however, the end users inside the company are able to choose from internal, external, SaaS or desktop setups, and their choices may conflict with those of the IT managers, Sheth noted.

"A lot of previous applications didn't focus on the end user. The way that software is typically sold, the user things are negotiated with the IT department. But the user is becoming more important. You have situations where the users will want a certain way of operating, and the IT department, potentially, wants something very different. It's tough to make the applications you offer to your users a democracy. In many ways your job is to make sure there is control, so the tough thing is finding the equilibrium," said Sheth.

Mark Bagley, vice president of technology at BT Group's West Coast innovation scouting effort, summed up the argument in favor of purpose-designed apps with aplomb: "If you started fresh today, would you create an application that does everything for everyone? No, you'd probably go vertical. I think we're not going to go back to that world of having a platform for everything. I think we're going to have lots of very specific applications." ■



Apps are more of an iterative thing now, says Google's Sheth.

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Semantic Technologies Meet SOA

Metatomix's middleware applies business rules, reasoning to data

BY DAVID WORTHINGTON

Do semantic technologies have a place in software-oriented architecture (SOA), and more

important, can they break organizations' reliance on expensive data warehouses? Metatomix believes they can.

Sept. 10 saw the release of version 5.0 of Metatomix's semantic middleware platform. The platform applies business

process rules, and semantic reasoning from industry domain ontologies to information that it collects, enabling customers to

integrate data and to uncover and define relationships.

"[Semantic technology] eases the way to describe and work with information," said chief technology officer Colin Britton. A metadata-based approach offers users a network-centric view of information stored in various silos of data, he explained.

Metatomix 5.0 uses the SPARQL RDF query language to perform federated queries across multiple databases and data formats, and now offers support for a number of data types, including relational, file-based and memory-resident, said Britton. Support has also been added for Oracle 11g's semantic layer.

In addition, the new release includes reasoning and validation enhancements to validate semantic data against an ontology, and has an improved business policy engine, licensed from an unnamed third-party vendor. The policy engine permits organizations to semantically describe business actions without writing business rules.

Another new feature is service links, which are data access services that forge links between data, creating reusable modules out of service profiles. Britton cited the example of a state official who queries an individual's driver's license number, where the semantic engine evaluates how it should respond using business rules and ontologies. It directs the query to the Department of Motor Vehicles, and the registry at the DMV answers, with additional information that the query can use to call other data sources, forming a processing chain.

ENABLES EXISTING STACK

Metatomix also updated its application development tool, MetaStudio. MetaStudio is an Eclipse-based IDE that bundles tools and libraries to help developers semantically enable apps. The IDE enables semantic use from within Adobe's Flex, through Java EE containers to the application platform, said Britton.

"We don't see our role as to be the full stack. People are already investing in that stack. We are semantically enabling the stack that they have, with an intelligent processing engine," said Britton.

"Metatomix is laser-focused on providing customers with real-world applications of semantic technology," said Metatomix president and CEO Jeff Dickerson. ■

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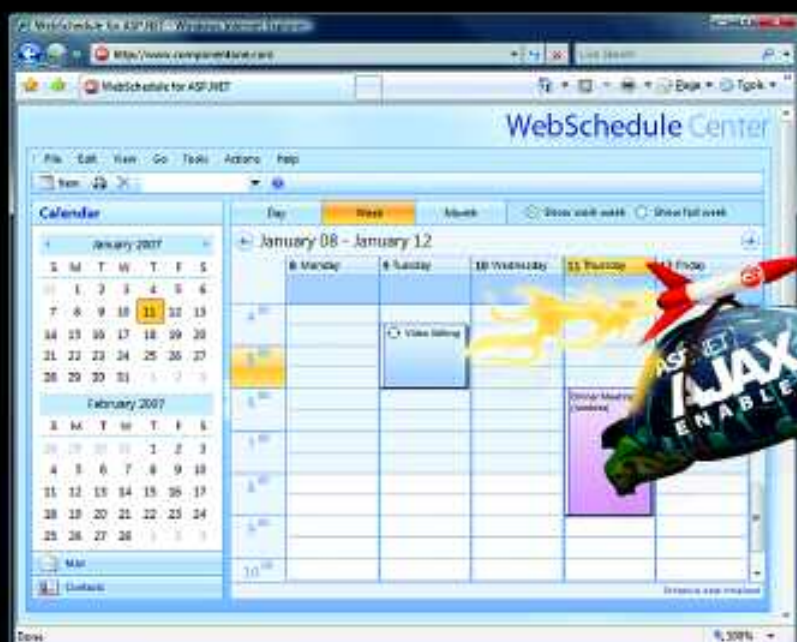
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Sun Offers App Server Unity in GlassFish

◀ continued from page 1

which was developed in parallel to GlassFish. But with the release of GlassFish version 2, Sun has consolidated its Java EE application servers into a single codebase.

While GlassFish will remain

free, it now offers all of the enterprise-specific features of the Sun Java System Application Server. For example, the GlassFish update includes the OpenESB support for Java Business Integration. Now, the only differences between Glass-

Fish and its commercial twin are in the installers: The Sun Java System Application Server's is richer and capable of updating previous installations, while GlassFish's is somewhat sparse.

Both application servers

include the fruit of Project Metro, the label for Sun's efforts to support Microsoft-based Web services. From a Java perspective, Project Metro takes the form of an entire stack of software built to allow for secure communication between Java-based services and those hosted in Microsoft systems.

But for enterprises, the most notable change to GlassFish version 2 may be the inclusion of clustering tools. Although the application server update offers an overall speed increase of around 60 percent, according to Drachnik, enterprise customers can boost that bonus by using GlassFish's built-in administration tools to help deploy applications across grids.

Also on Sept. 17, Sun announced the release of a beta version of its NetBeans 6.0 IDE. This beta includes many of the enhancements needed to quickly create and deploy GlassFish-based applications. This is the first beta release of



More enterprise features have made their way into GlassFish, says Sun's Drachnik.

this cycle, and the final product should be released sometime in November.

GlassFish version 2 is free to download. Sun Java System Application Server 9.1 is available for US\$4,500 per year for a single-machine, four-CPU license. This includes service and support, and has been reduced since the last release, according to Drachnik, who hopes this price drop will help to spur adoption. ■



The Sun Java System Application Server console features a refined administrative approach to setting up application clusters to be deployed across grids.

SCO Group Files For Bankruptcy

◀ continued from page 1

as it was by the balance sheet, since the Novell trial was due to begin three days later.

Bruce Lowry, director of global public relations for Novell, said that this move would indefinitely postpone the trial with SCO. "U.S. bankruptcy law stays pending litigation, so the trial that was to have started on [Sept. 17] is now stayed. We'll be assessing our options for pursuing our interests relative to SCO. That's all we can say at this stage," said Lowry.

A 'RED-LETTER DAY'

Jim Zemlin, the executive director of the Linux Foundation, called Sept. 14 a red-letter day for Linux, but a sad one "for employees, customers and shareholders of The SCO Group," he said. "SCO's filing of Chapter 11 is the final statement in a lesson which will long be remembered by the software industry. Since 2003, SCO has chosen a business strategy of litigation which

resulted in its bankruptcy. In the same period Red Hat, a company that chose to offer open source and Linux products, has seen a 400 percent increase in shareholder value. Legal gamesmanship is no match for the power of honest innovation," he added.

Bernard Golden, CEO of Navica and author of "Succeeding With Open Source," said: "The stage manager was saying, 'This fat lady's going to sing, and this is going to be fantastic,' but then he had to come out and say, 'The fat lady's not going to sing, and by the way, the opera company's bankrupt.' If you look at the adoption of Linux since the suit was filed, it really hasn't been impeded. The value proposition is so strong for Linux that people said, 'I'll go ahead and do it anyway.'"

He added that corporate Linux users had been confident for some time that their upstream Linux providers would provide indemnification against legal action based on

SCO's claims.

But not everyone was convinced of this protection. During its legal maneuverings, SCO sold a number of indemnities to larger competitors, such as Microsoft and Sun Microsystems.

These companies, while not publicly endorsing SCO's lawsuits, have taken strong anti-Linux stands of their own. Al Gillen, research vice president of system software at IDC, said that those agreements should still be valid.

"I guess they continue to have indemnification from anything SCO would do," said Gillen. "That's what they bought. I don't think the reorganization is going to fundamentally change [those contracts]."

Some critics, though, had charged that SCO's offering of indemnification licenses was akin to extortion.

Nonetheless, Gillen pointed out that SCO's users aren't going to abandon the company. "They still have a big installed base and some resellers. There is a customer base. It's not like it disappeared completely," said Gillen. He added, however, that SCO's base has "contracted considerably over the last couple of years." ■

Virtual Machine Image Standards Are Emerging

BY ALEX HANDY

Virtualization has advanced to the point where individual packages of running operating system and software must be handled in the same way as any other data asset: They must be stored, saved and passed through tools from different vendors. In September, the Distributed Management Task Force (DMTF) accepted a draft specification for the standardization of virtual machine images, or at least as a way to make them interoperable.

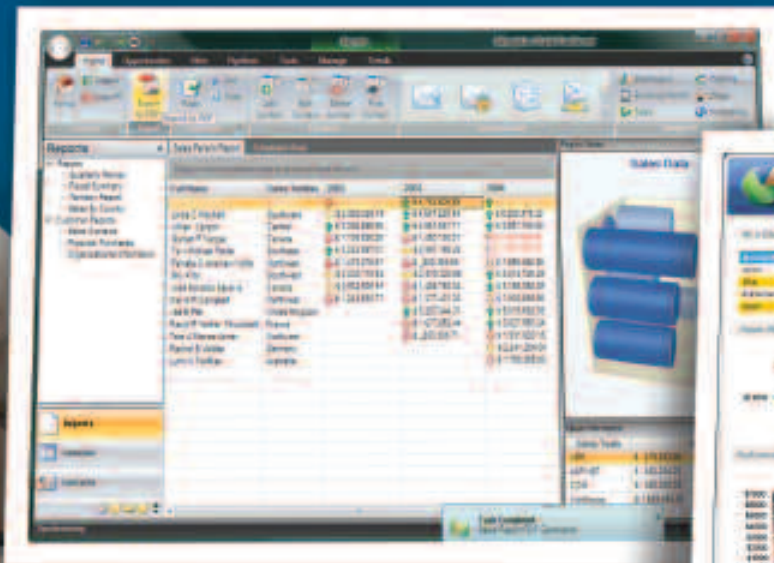
Behind the creation of this draft specification are Dell, Hewlett-Packard, IBM, Microsoft, VMware and XenSource. The proposed format is known as the Open Virtual Machine Format (OVF), and essentially encapsulates a virtual machine image in an XML wrapper, for easier identification and compatibility. DMTF president Winston Bumpus noted that the OVF specification would also link into other virtualization standards being developed inside the DMTF.

The OVF specification also includes plans for security features that would ensure the integrity of transported virtual machines. The overall goal of the project is to make IT organizations more comfortable with the packaging and deploying of virtualized environments as hosts for critical applications.

Mike Neil, general manager of virtualization strategy at Microsoft, said "OVF complements Microsoft's open Virtual Hard Disk format and the strong ecosystem of vendors that now support it. Microsoft continues to be an active member of the DMTF virtualization management efforts, and we see OVF as a natural extension of our existing standardization work in this area," said Neil.

The draft specification for OVF must now undergo further evaluation and development within the DMTF. There was no word on when this work would be finished, and it is unknown when the OVF specification will be completed. ■

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MySQL's Falcon Spreads Its Wings

BY JEFF FEINMAN AND
P.J. CONNOLLY

MySQL AB, creator of the open source MySQL database, had a busy September, as the company announced a release candidate of MySQL 5.1 Community Server, an alpha release of MySQL 6.0, a new version of MySQL Enterprise and other components.

Database partitioning is the most-touted feature of MySQL 5.1, but there's more beyond that. Row-based replication writes changes to a log on the master server, instead of sending SQL statements to a slaved database. As of version 5.1.8, this will be the default replication behavior, with the row-based option preserved.

MySQL 5.1 adds support for a plug-in API that enables the flexible loading and unloading of components on a running server; a text parser is likely to be the first beneficiary of the new API. The new release also includes a built-in event scheduler, and an overhaul of clustering features.

Along with the MySQL 5.1 release candidate and the alpha of 6.0, MySQL Proxy and MySQL Connector/ODBC 5.1 were expected to become generally available in September. MySQL Proxy allows users to analyze and monitor communications between a client and the MySQL server. The MySQL Connector/ODBC 5.1, as the name implies, is an ODBC driver that provides client access to a MySQL database.

MySQL 6.0 will be built on the new Falcon transactional storage engine, which is designed to run on a variety of hardware platforms. The MySQL Falcon architecture consists of six basic components: data files, a log containing data and index changes, a page cache, a record cache, system memory, and worker threads that move data from the Falcon log into the page cache.

Falcon can be previewed as part of the MySQL alpha, and runs on Intel-based Mac OS X, Linux and Windows. MySQL plans to have a GA release in mid-2008.

The new version of MySQL Enterprise, the company's commercial subscription service, aims to ease the management of Web sites and critical busi-

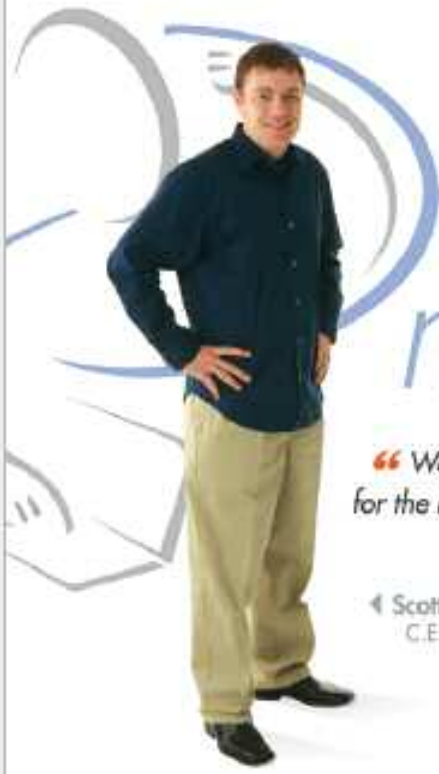
ness applications. A typical subscription to MySQL Enterprise 2007 consists of monthly MySQL server software updates, and access to the MySQL Enterprise Monitor, which fea-

tures a new replication monitor and a gallery of over 20 graphs of distributed database environments. Telephone and Web support is also provided as part of the service.

MySQL Enterprise is intended to simplify database scale-out, which "is how many of today's largest and fastest-growing online companies keep their sites up, their IT budgets down,

and their technical teams sane," according to Marten Mickos, CEO of MySQL. "[Companies] can better manage their growth by replicating database servers on low-cost commodity PCs. Our new version of MySQL Enterprise makes database scale-out even more affordable and easier to administer." ■


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Koders Code Search Goes Pro

BY ALEX HANDY

The more code a development team generates, the harder it is to find something inside that code. Koders, the company behind source code search engine Koders.com, released its

first enterprise source code search tool last year to help solve this problem. In September, the company released a new tool, Koders Pro Edition, that softens some of the sharper edges of its enterprise product.

The biggest change from Koders Enterprise Edition is the simplification of the installation process. In Koders Pro Edition, all the needed files are included in one package, rather than relying on prein-

stalled libraries to handle certain tasks. The software runs on a dedicated machine, with a built-in Web server and embedded database for logging found code.

And finding code is Koders'

No. 1 job. The Pro Edition spider walks through Subversion or CVS repositories, cataloging the source code within. Additional repositories can be examined with simple customizations, or with the addition of Koders' own preconfigured tweaks for IBM Rational ClearCase or Perforce repositories. Developers can then use the software to find what they're looking for inside all of these disparate servers.

But for managers, new reports that can be generated around source code information may be the big draw. Darren Rush, CEO of Koders, explained that his company has enhanced metrics for languages, licenses and reuse.

For development teams, Koders Pro Edition is available for US\$99 per seat, per year. ■

iTKO Virtualizes SOA Testing

BY DAVID WORTHINGTON

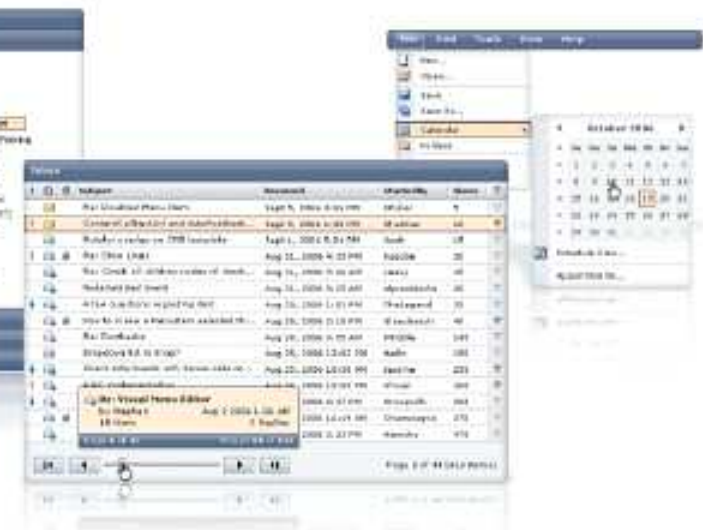
Virtualization isn't just about hardware, believes testing provider iTKO, which has expanded its software's ability to simulate load testing by using virtualized services.

iTKO released version 3.6 of its LISA SOA testing framework at the end of August. LISA leverages virtualization to run tests that invoke and verify at each tier of the architecture. It virtualizes the behavior of services to lower the number of test beds, and reduces licensing costs and contention on hardware.

The upgrade adds several feature enhancements that include an expanded set of load patterns for simulating user traffic, simulation patterns that run from multiple servers and locations, more automated pacing of transactions for test cases, and test synchronization.

John Michelsen, founder and chief architect of iTKO, said that the next major release of LISA would make broader use of virtualization. "As [Business Process Management Systems] become applications, we want to be the best application," he said, noting that the pairing of SOA and virtualization technologies was a match made in heaven.

iTKO also intends to provide more functionality around SOA governance runtime policy. Critical Path Tracer is a new component being developed to inspect environments and perform functional and performance verifications, said Michelsen. ■



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CodeGear Rolls Ruby Onto 3rdRail

BY ALEX HANDY

CodeGear's newest IDE, released in mid-September, is dangerously powerful. 3rdRail is a Ruby IDE that focuses heavily on automating and simplifying the tasks associated with deploying applications on top of the Ruby on Rails framework. While CodeGear already offers Ruby IDEs in various forms, 3rdRail's heavy emphasis on the Rails framework makes it stand out in a field where the language is rarely used alone.

Michael Swindell, vice president of products and strategy at CodeGear, said that Ruby on Rails has reached a tipping point. "Clearly, we've been seeing Ruby on Rails growing in popularity," said Swindell, who noted that enterprises began taking a good look at it last year. "That's an early indicator of a language and platform that's going to become a standard. But when we look at the tool sets available, there's a clear lack of tools that are focused on specifically building Rails applications."

Therefore, CodeGear began

its 3rdRail effort by examining the Rails workflow.

Joe McGlynn, director of product management at CodeGear, said his team found that "the state of the art today for building Rails applications is a command line and a text editor. It turns out to be a very productive way to work. But we thought we could improve on that. We started building features that embodied that mode of working

within the IDE. One is the CodeGear Commanders. If you're a new user, you probably don't know all those [command line] commands. We pulled the command line into the IDE and added command completion."

3rdRail also adds more powerful refactoring tools than other Ruby IDEs offer, McGlynn noted, explaining that it was difficult for the team to build true multifile refactoring capabilities

when working with a dynamic language such as Ruby. But in the end, he added, the effort was a success. 3rdRail also includes a dependency checker, and tools to help developers find the methods and tests that are relevant to their work.

With 3rdRail versions due for Linux, Mac OS X and Windows, the CodeGear development team found itself in a position to solve another Ruby on Rails

problem: installation. Although installing the framework and environment has always been relatively easy under Windows, McGlynn pointed out that Linux and Mac OS X have unique dependencies and installation requirements. But the 3rdRail team managed to find a way to install the necessary files and support infrastructure for Ruby on Rails on each of these platforms. The installer can also load MySQL and CodeGear's own Interbase database, which is available here for the first time on Mac OS X. ■

RAD Studio 2007 Delivers Delphi

BY JEFF FEINMAN

Looking to help developers build Windows and Web applications more quickly, CodeGear in September released CodeGear RAD Studio 2007.

RAD Studio is the company's rapid application development (RAD) environment for Microsoft Windows, and the 2007 release delivers the company's Delphi for Win32 RAD tool, C++ Builder and Delphi .NET 2.0 development in a single, integrated environment.

The company claims that it is the only IDE that supports rapid application development of both native Microsoft Windows and .NET applications on, and for, Windows 2000, Windows XP and Windows Vista.

New in RAD Studio 2007 is enhanced Delphi support for the Microsoft Vista Aero UI, Delphi compatibility with Microsoft .NET 2.0 and ASP.NET 2.0, and the ability in Delphi for .NET to use any type of data structure as a parameter.

BlackFish SQL, CodeGear's SQL-compliant transactional database, is fully integrated with the new version of RAD Studio. Developers can use RAD Studio's Data Explorer to manage their Blackfish databases, according to company officials.

RAD Studio 2007 also adds Enterprise Core Objects, which is a .NET model-driven development framework. Enterprise Core Objects allows developers to use diagrams to build objects and object relationships. The

dbExpress 4 database, CodeGear's single-source Windows database infrastructure, can now work with RAD Studio.

"Just as the Windows platform and the Web are continually evolving, CodeGear's Delphi and C++ products are also evolving to help developers take advantage of these changes, creating new opportunities for both ISVs and client/server developers," said Nick Hodges, Delphi product manager at CodeGear. "CodeGear RAD Studio 2007 has new features for developers interested in high-performance Windows applications." ■



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SOA Software Adds Governance to BizTalk Server R2

WorkBench uses a Microsoft toolkit to build Web services governance

BY DAVID WORTHINGTON

Microsoft often relies on partner ISVs to extend the out-of-the-box functionality to meet the requirements of enterprise customers. The latest example comes in the realm of SOA governance, where with the release of BizTalk Server 2006 R2, Microsoft has partnered with SOA Software to offer essential governance features for BizTalk.

SOA Software WorkBench was released simultaneously with BizTalk R2 on Sept. 11, and adds capabilities such as closed-loop governance, dynamic policy enforcement and implementation, trust mediation and bridging, and uniform policy management to BizTalk Server. (See "BizTalk 2006 R2 Ready to Walk the Walk," page 34.)

WorkBench also integrates with Microsoft's new ESB Guidance Toolkit. The ESB toolkit provides hooks for WorkBench to monitor and manage policies for the BizTalk platform, said

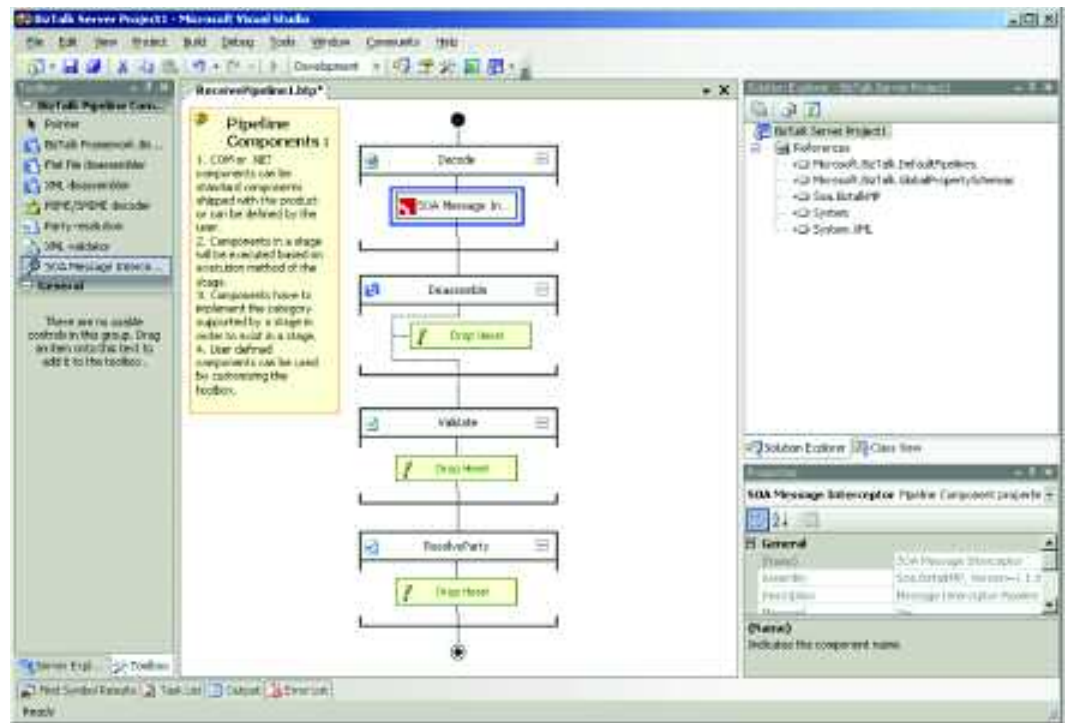
Roberto Medrano, executive vice president of SOA Software.

Microsoft is separately distributing WorkBench's Management Point module, to manage and collect data from within the .NET platform to be governed by SOA Software's products, Medrano added.

David Pawloski, product director at SOA Software, explained that WorkBench is a role-based access device with governance capabilities at both design time and runtime. It integrates with Visual Studio and is a native component in the BizTalk palette, replacing the default pipelines in order to intercept and monitor messages.

"Developers build the flow they are used to using; it's non-invasive, and there are no extra lines of code required," said Pawloski.

WorkBench also integrates on the back end to look for faults outside of BizTalk and correlate back for exception



SOA Software's WorkBench integrates with Visual Studio; SOA filters drop into flows.

handling and management, he added.

"The combination of SOA Software's SOA Governance

solution and Microsoft's BizTalk Server 2006 R2 provides customers with an enterprise-class solution for SOA governance,

security, mediation and management," said Steven Martin, director of the Connected Systems Division at Microsoft. ■

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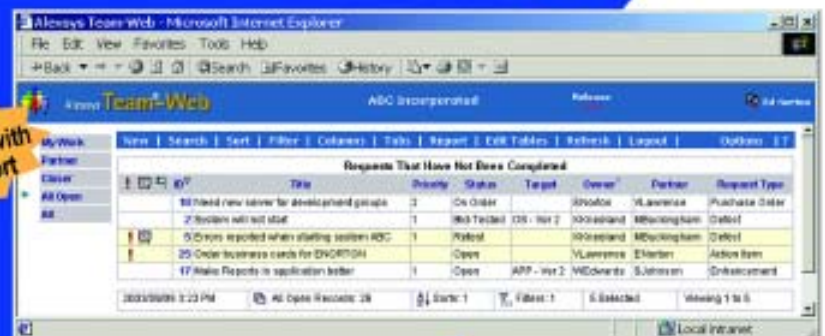
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Coverity SATs Not Merely Academic

New analysis technique identifies broader constructs with fewer false positives

BY DAVID WORTHINGTON

In the 1970s there was Lint, a static source code analysis tool that flagged suspicious con-

structs in C code; false positives were common then, but modern tools can identify a broader range of constructs—with far

fewer false positives.

Coverity added a completely new type of source code analysis engine to its Prevent SQS

software quality system, in an update released on Sept. 19. Prevent SQS uses a technique called SAT (from Boolean Satis-

fiability). Unlike many tools, SAT is not based on data flow analysis.

Rather, it complements Coverity's data flow analysis engine. SAT is concerned with whether a Boolean expression has a solution.

Coverity Prevent SQS maps code, and identifies and resolves defects. It automatically builds a "Software DNA" map to understand the code and break down languages such as C. It then translates the map into relevant formulas for defect detection, applies bit-accurate reasoning and runs an assertion-based SAT-solver, chief technology officer Ben Chelf explained.

According to a Coverity white paper, a SAT-solver "takes in a formula of variables under the operations and determines if there is a mapping of each individual variable to true and false, such that the entire formula evaluates to true." This method is meant to flag defects and reduce false positives.

SAT was first used commercially in the electronic design automation industry for semiconductor chip design, Chelf explained. "The hardware guys are way ahead of software," he added.

The discovered defects fit into the same workflows as those discovered by customers or QA teams, Chelf said. The classes of defects Prevent SQS detects are buffer overflows, dead code, integer overflows and string overflows.

Additional SAT solvers are slated for the next release of Coverity Prevent SQS. ■

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Qlipmedia.com Turns Developers Into John Madden

BY ALEX HANDY

At first glance, Qlipmedia.com is not a Web site that screams "enterprise software development." This video creation and hosting site is resplendent with the bright-colored buttons and smiley faces that you'd expect to find on a consumer site. But despite the kid-friendly appearance, Qlipmedia.com, which officially launched on Sept. 10, offers QA managers a new way to show problems to remote developers.

Qlipmedia's software is composed of a desktop application and a Web-based video-hosting site. Users of the desktop application can import images or capture screenshots of their workspaces. The application can capture sound with the computer's microphone, while users flip through their images, and then draw on top of them, like football analyst-legend John Madden does with a telestrator.

The result is a communication tool that eliminates the need for coordinated Web meetings and painful phone calls. "We used it to develop it," claimed Swamy Viswanathan, co-founder and vice president of products at

Qlipmedia.com. He said that the company—founded by three men who worked together in previous Silicon Valley startups—uses an Indian development team to create its software.

In the process, Viswanathan

used the image capturing and illustrating to send those developers instructions and critiques of their work. The tool is particularly well suited to the development of GUIs, as Viswanathan demonstrated by drawing ar-

rows toward the Qlipmedia application's buttons and controls while dictating instructions to make these the same size throughout the interface.

Viswanathan said that the Qlipmedia service is free for

consumers to use. The company has an enterprise version of the tool available as well, and is offering a 30-day free trial of that edition, which offers a more buttoned-down appearance in its interface. ■

Blueprint Adds Repository

BY JEFF FEINMAN

Requirements definition tools provider Blueprint released its collaboration-focused Requirements Center 2008 in September.

Blueprint Requirements Center 2008 comes with the new Definition Server repository, designed for version control and configuration management. It also offers direct integration to HP Quality Center.

A new Blueprint Change Management module enables users to consolidate projects into a single baseline. The tool comes with a new graphical editor that Blueprint says makes it easier to build complex use case models.

Matthew Morgan, chief marketing officer for Blueprint, noted, "We focus on ensuring that the content in requirements management is complete, accurate and rich, whereas requirements management focuses on how it's going to be implemented, who is going to do it, and when are they going to get it done by." ■

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Microsoft, Novell Open Joint Facility

BY DAVID WORTHINGTON

Microsoft and Novell have announced that their joint development facility in Cambridge, Mass., is open for business. The facility will be home base for

Microsoft and Novell engineers working to make SUSE Linux Enterprise and Windows Server more interoperable.

"Today's lab opening is another indicator of the high priority

that Novell and Microsoft are giving this collaboration," said Novell's Suzanne Forsberg, the Interoperability Lab manager. "This kind of technical interoperability work requires disci-

plined effort and dedicated resources, and that's what this lab is built around. Enterprise customers are demanding exactly the kinds of interoperable solutions that will be the focus of

this lab's work and output."

The announcements come ahead of a decision by the European Union's Court of First Instance on Microsoft's business practices. The Luxembourg-based court is expected to rule on whether Microsoft illegally used its majority share in desktop operating systems to stifle the video and media player business. The Court of First Instance is the second-highest court in the EU. ■

Actuate Launches Community Web Site for BIRT

BY DAVID WORTHINGTON

Just as the free library was a boon to intellectual enlightenment, Business Intelligence and Reporting Tools (BIRT) promises to do the same for business visibility. But the Eclipse-based reporting system that integrates with Java EE applications to produce reports requires community support to forge ahead.

Actuate, the company that founded and co-leads the project on behalf of the Eclipse Foundation, has set out to provide the BIRT community with an online resource center. BIRT Community Exchange, which launched on Sept. 24, hosts BIRT-related articles, blogs, demos, designs and code, downloads, tips and tricks, tutorials and a Wiki.

Nobby Akiha, senior vice president of marketing at Actuate, explained that the community site has been established to attract people that are already using BIRT, as well as new users. Akiha stressed that the most important part of the site is the DevX developer forum. There, developers can find ways to use and extend BIRT, he said.

The BIRT architecture is composed of the Eclipse BIRT Report Designer and Design Engine, and available runtimes include a Report Engine, a charting engine and a Web viewer. BIRT reports are designed using Java and JavaScript. BEA Systems, Borland Software, IBM and XenSource have adopted BIRT as a reporting system.

Actuate began work on BIRT three years ago at the behest of the Eclipse Foundation. Actuate's strategy is to sell value-added software on top of the BIRT platform, Akiha said. The company shipped its first BIRT-based product in 2005. ■

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Aladdin Secures .NET 3.0 Application Code

BY DAVID WORTHINGTON

Companies that have a great deal invested in .NET applications and want to protect the intellectual property within may feel as if they're trying to lock the barn door after the horse has escaped, or put the genie back in the bottle.

Aladdin Knowledge Systems in early September released HASP SRM 2.5, a rights management solution that the company says will keep software source code away from prying eyes. HASP SRM's .NET envelope now supports .NET Framework 3.0, and integrates licensing processes with CRM/ERP systems.

HASP SRM can protect the source code of .DLL, .EXE and .NET Framework 2.0 and 3.0 files through code obfuscation and encryption, coupled with additional hardware- and software-based security, using dongles and product activation, respectively. Developers do not have to modify source code to incorporate calls to the protection system.

Laila Allan, director of

product management for Aladdin DRM business unit, said that HASP SRM is a business tool independent of the engineering process. It can be used to track license and pur-

chasing updates and set license types, and now integrates with CRM systems to increase business visibility, she said.

Aladdin's Business Studio Server API, a role-based tool

for managing software license life cycles, opens up the possibilities for integration. For example, sales and marketing teams can use it to learn which modules are used more often,

or what customer purchasing preferences may be.

Aladdin also updated the Admin Control Center monitoring and management tool, adding the ability to extract and view operating information for troubleshooting purposes; it can also generate diagnostic reports in HTML and XML. ■

3TERA HITS GRID WITH APPLOGIC 2.1

BY ALEX HANDY

3Tera turned on version 2.1 of its grid operating system for Linux in early September, updating AppLogic with administrative enhancements, multicore and multiprocessor support, and a new Web-based command-line console.

AppLogic is a low-level operating system designed for scalability across grids. Developers can build Linux stacks and deploy them onto these grids, thanks to AppLogic's compatibility with the Linux kernel.

Aside from the administrative Web GUI improvements, version 2.1 introduces new reference applications intended to help ease developers into the process of running their programs on top of AppLogic grids.

In addition, version 2.1 now supports multi-CPU and multicore servers, and as a byproduct of this ability, grid nodes can now recognize more than 2GB of RAM, according to the company. ■

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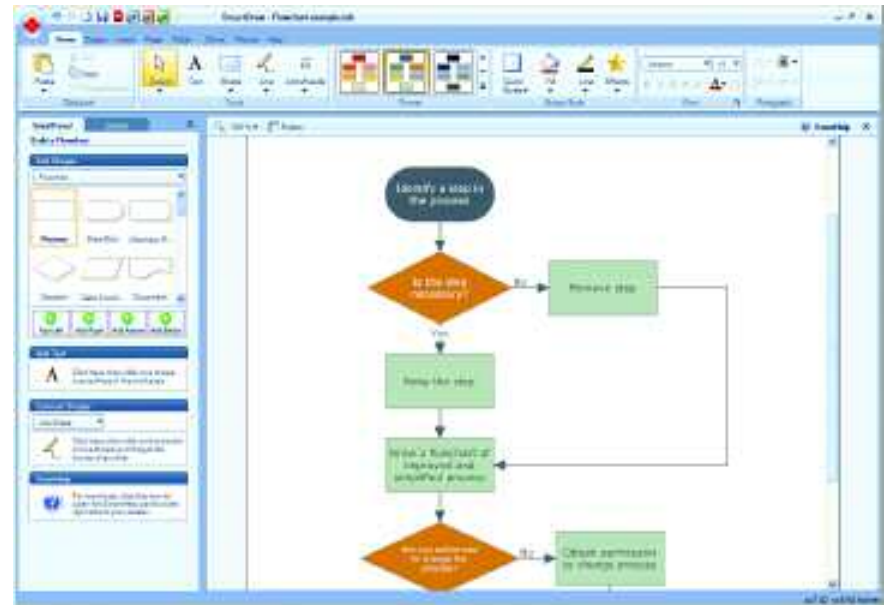
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SmartDraw 2008 has automatic flowcharting to help users create business graphics.

From Scrawling to Drawing

SmartDraw.com adds no-spreadsheet charting

BY JEFF FEINMAN

Business graphics software creator SmartDraw.com announced in September the release of SmartDraw 2008, which automates the creation of business graphics, such as flowcharts, mind maps and organizational charts.

The latest version of the software program contains a number of new features, including automatic flowcharting and specialized templates that offer users a mold from which they can build business graphics.

A feature called Express Charts allows the creation of charts and graphs without the need for a supporting spreadsheet. There are also new picture charts that use images to display data, a

Live Map feature that captures live data from the Internet, and an integrated photo capability so that photos can be incorporated into business graphics.

"We made selecting the right template even easier by creating a comprehensive encyclopedia of business graphics," said Paul Stannard, CEO of SmartDraw.com. "It lists every type of business graphic with a definition, an explanation of how it is used, and a SmartTemplate that can be used to create one."

Stannard said that SmartDraw 2008 is a good tool for users who aren't graphic experts and need help when laying out and designing graphics. With its automatic features, SmartDraw is able to take care of those functions, he said. ■

Quad-Core Opterons Launched

New chips soup up VMware, Xen virtualization

BY ALEX HANDY

AMD has unveiled its long-awaited quad-core Opteron processors, formerly code-named Barcelona. While these new processors offer the benefits of a 65-nanometer fabrication process, it's the virtualization enhancements that may prove most exciting to developers. The newest of these enhancements is the addition of Rapid Virtualization Indexing, a facility to translate virtualized memory addresses into their real memory counterparts more quickly.

This new feature is part of the ever-expanding AMD-V—for virtualization—capabilities. In previous processors, built-in virtualization assistance was manifested in the form of live migration support for virtual machines running on older processors. Additional hooks were added to allow virtual machines to directly communicate with RAM and I/O controllers through a feature AMD has dubbed Direct Connect Architecture.

As of the release on Sept. 10, Novell SUSE Linux Enterprise (using service pack one) running Xen virtualization supports Rapid Virtualization Indexing, which is also known as nested paging. AMD this past spring released preliminary benchmarks that indicated around 20 percent performance increases when running SUSE Linux Enterprise 10 virtualized in Xen and utilizing nested paging.

Diane Greene, co-founder and president of VMware, said that her company is readying software that takes advantage of AMD's virtualization technologies. "[Nested paging] allows things to run with less memory. We've seen this in our labs. We're also looking forward to the next generation of things we're doing, around live migration to different processor models and also around I/O virtualization," said Greene, speaking at AMD's Opteron launch event.

AMD plans a 2.5GHz model of the new processors for December. ■

Get Your Mule on Demand

MuleSource is testing an integration Web service

BY DAVID WORTHINGTON

If Web services were so easy to implement, everyone would have done so. But for many organizations, it is simply easier to rely on time-tested manual processes such as FTP file uploads, than to navigate corporate firewalls and policies.

On Sept. 17, MuleSource released a beta of MuleonDemand, a hosted subscription Web service that permits businesses to integrate services with third-party and SaaS applications, using the Mule open source integration framework. The Mule framework is message-based and can be used as an enterprise service bus.

The MuleonDemand beta permits companies to upload a CSV file or text to a listening agent, which parses contact information into XML and inserts it into Salesforce.com. The service supports a broad range of messaging protocols, including e-mail, Java Message Service, MQ Series, Representational State Transfer, SOAP and Web services.

MuleonDemand users map fields using the service's browser-based front end. A map is created once and stored; every time a CSV file is sent, the fields

are matched. Data passes through MuleSource's servers and is logged to create an audit trail, but not stored.

As the MuleonDemand service evolves, schemas will be provided for popular Web services, including Siebel CRM OnDemand and SugarCRM.

MuleSource chief executive officer Dave Rosenberg explained that the primary use cases were people that run the Mule gateway server that talk to the cloud, versus integration in the cloud itself.

An internal beta under development is geared toward e-commerce and will provide third-party mediation between partners, Rosenberg noted.

MuleSource is evangelizing Mule with MuleForge, a collaborative development Web site for Mule extensions and applications built by the Mule community and MuleSource partners. The site launched Sept. 4, and hosts more than 40 projects at this time.

MuleForge features source control through Subversion, continuous builds through Bamboo, issue tracking through JIRA, a Web-based Java EE application for bug and issue tracking, and a documentation wiki. ■



A console helps track which users are mapping files, and if it's done successfully.

PROJECTKOACH

OPENS UP TO ANOTHER PROCESS

BY DAVID RUBINSTEIN

Good Software has announced that ProjectKoach 2007.2, its free project management software, now supports the OpenUP process created from the Eclipse Process Framework efforts.

OpenUP is gaining momentum, according to Good Software founder Bjorn Gustafsson, as people look for something lighter than the Rational Unified Process from which OpenUP was spawned, and as organizations that currently have no processes in place look to gain a little discipline. "It's relatively

small and easy to grasp to get a small team going," he said. The combination of OpenUP and ProjectKoach, he added, aligns with agile development processes in place in organizations today.

ProjectKoach will support OpenUP in its Smart Process capability by bundling a configuration that includes descriptions of how to perform OpenUP tasks in ProjectKoach, Gustafsson said. There also are two templates for OpenUP projects to help teams get started. "Process is an integral part of our daily project activities, be it an explicit process or just tacit knowledge," Gustafsson said in a statement accompanying the product release.

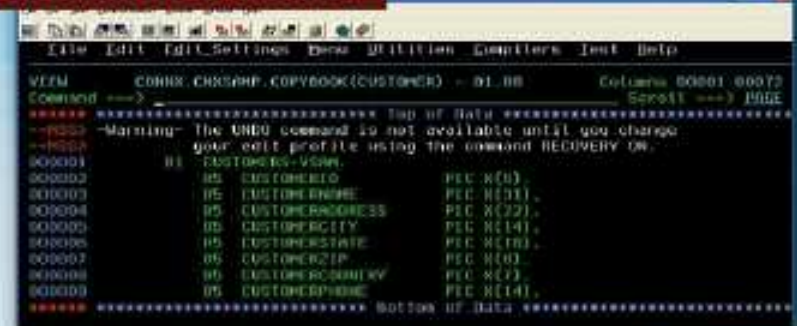
Gustafsson hinted at a commercial release sometime next year for tools supporting OpenUP, noting that most Eclipse tools are aligned with IBM's Rational Unified Process. ■

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BizTalk 2006 R2 Ready to Walk the Walk

BY DAVID WORTHINGTON

For months, Microsoft talked up BizTalk Server 2006 R2. It became generally available on Sept. 11, with improvements made to its communication, inte-

gration and RFID capabilities.

BizTalk 2006 R2 ships with .NET Framework 3.0, which provides Web services integration using features found in Windows Communication Foun-

dation (WCF), a component introduced earlier this year as part of Windows Vista. The framework includes support for the WS-* specifications, making it interoperable with other Web

applications and services.

Microsoft also released what it calls an ESB Guidance Toolkit, furthering its Web services thrust. The toolkit provides architectural guidance, patterns,

practices and a set of BizTalk Server and .NET components that ISVs can use to develop an enterprise service bus (ESB) using Microsoft technology. The toolkit is available free of cost at Microsoft's CodePlex Web site.

What's more, Microsoft BizTalk Labs is tooling away on a hosted version of its ESB platform that it refers to as an ISB, or Internet Service Bus, to complement its on-premise software. The ISB offers customers WCF-based connectivity services, identity services and a software development kit.

R2 is also central—quite literally—to Microsoft's nascent RFID strategy, positioned by the company at the heart of an integrated stack of RFID data, back-end systems and line-of-business applications. To further its adoption, Microsoft will offer industry-specific supply-chain solutions.

MAKING CONNECTIONS

Steven Martin, director of the Connected Systems Division at Microsoft, explained that his group is working to create a standard interface for .NET developers to connect with back-end applications, dubbed the BizTalk Adapter Pack.

That pack has data providers for ADO.NET, Oracle and Siebel applications, and can be extended to connect to Web services that are standards compatible with the WCF. Microsoft has published interoperability sample code onto CodePlex that demonstrates how to interoperate with Java EE applications.

The pack is not slated for delivery until the first half of 2008, but is available today as a preview through Microsoft's Technology Adoption Program.

The release includes a new addition to the BizTalk family, the Branch Edition. It permits a hub-and-spoke approach to deployments, which takes into consideration events that affect business processes that do not occur at the home office. The Branch Edition uses a local BizTalk repository that relies on a central installation of BizTalk Enterprise Edition, and lacks the Enterprise Edition's development tools.

As an incentive, BizTalk customers will also have the option to purchase a discounted SOA and Business Process Pack that includes Office SharePoint Server 2007, Visual Studio Team System and Microsoft SQL Server 2005. ■



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PHP Development Tools Project Hits 1.0

BY ALEX HANDY

The Eclipse Foundation released the final version of the PHP Development Tools (PDT) project on Sept. 18. Officially released as version 1.0, this set of Eclipse tools is designed to be accessible to newcomers, yet powerful enough to help with debugging and organizing PHP applications. IBM and Zend Technologies created the software under the Eclipse umbrella.

Ian Skerrett, director of marketing for the Eclipse Foundation, said that the final release of PDT would only help to expand the reach of Eclipse as a whole. "This is the first project really targeted at PHP developers. This is great news for us, and it's a great way to expand the Eclipse community into the PHP community. There are 4.5

million PHP developers out there," said Skerrett.

Yossi Leon, PDT project lead and a product manager at Zend, said the PDT brings the standard IDE capabilities to PHP, including syntax highlighting,

inspection capabilities and debugging helpers. These capabilities allow developers "to inspect different PHP content and provides the information in a dedicated view called the project outline," said Leon. "You

can see all the functions and all the classes you have in the different PHP files. We also created a PHP explorer view. [In it] you can manage the different PHP projects you have."

The PDT project is based on

the existing Eclipse Web Tools Project. Thus, developers working with PHP can edit their code in files that also contain HTML.

Leon stated that future additions to the PDT project could include further integrations with the task-focused Mylyn UI, as well as the Data Tools Project. ■

Rally Provides Agility to Salesforce

BY DAVID RUBINSTEIN

Extending agility beyond development teams, Rally Software in mid-September announced a suite of products designed to provide collaboration for the AppExchange environment hosted at Salesforce.com.

AppExchange is where individuals or organizations can develop, assemble and have hosted their applications, and now Rally is making available agile tools for that development, according to Ryan Martens, Rally's founder and CTO.

Making up the new suite are Rally Support Connector, Rally Community Manager and Rally Product Manager, which is expected to be updated in October. The goal, Martens said, is to provide visibility into the development phase of problem resolution, as well as to assist in prioritization of tasks.

Support Connector is designed to enable application support staff to communicate feature requests and defect alerts within the Salesforce platform. Community Manager is a collection of Web 2.0 services such as portals put together for customer support and developer collaboration. Product Manager assists managers in planning for product and service releases based on feedback given into Salesforce. ■



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BIZTALK SERVER 2006

ISO Says 'No' to Office Open XML

◀ continued from page 1

for fast-track approval. Part of the time since then was spent clearing Open XML through a contradiction phase, when possible conflicts with other standards could be submitted.

Five months of intense debate and lobbying came to a close when two requirements were not met: OOXML failed to muster a three-quarters supermajority of ISO voting members, and more critically, could not gain the support of two-thirds of "P-members," participants in the technical committee.

Among participating members, the defeat for Microsoft was pronounced; only 17 of 32 ballots were cast in favor of the OOXML proposal, well short of the 25 votes needed. That was enough to put OOXML on ice, even though the general membership balloting was close: Out of the 87 ISO members that responded to the ballot, 51 voted in favor of the proposal, while 18 voted against it and 18 abstained. Of those members that voted yes, 17 did so with comments.

Tom Robertson, general manager for interoperability and standards at Microsoft, looked at the bright side of the ballot results. "We are extremely delighted to see that 51 ISO members, representing 74 per-

cent of the qualified votes, have already voiced their support for ISO ratification of Open XML, and that many others have indicated they will support ratification once their comments are resolved in the next phase of the ISO process," he said in a prepared statement.

The next step is for Ecma Technical Committee 45 (TC45), the group steering Open XML, to address comments made by ISO members during the review of the specification. The proposal must now be revised before ISO reconsiders its approval as a standard.

The ISO/IEC JTC 1 subcommittee for document description and processing languages (SC 34), will convene on Feb. 26, 2008, to discuss the comments during a ballot resolution meeting. ISO members that voted against Open XML's approval will be able to withdraw their negative votes at that time. The objective of the February meeting is to reach consensus on what modifications should be made.

France's Association Française de Normalisation, an organization that represents French interests among standardization authorities, proposed splitting the OOXML standard proposal into components dubbed OOXML-Core



A rogue employee did not affect the outcome of the vote, says Microsoft's Matusow.

and OOXML-Extensions, and thereby isolate proprietary nuances that cover backward compatibility with legacy Microsoft Office documents.

The core proposal could be compatible with Open Document Format (ODF), a competing group of document specifications that has been recommended by both ISO (ISO/IEC 26300) and the Organization for the Advancement of Structured Information Standards (OASIS).

Microsoft's Robertson agreed that technical input would enhance the standard and believes that a second vote, scheduled for Feb. 25-29, at the close of the ballot resolution

period, will result in Open XML's approval.

Gartner research vice president Mark Driver said that ISO's rejection of OOXML gives ODF more momentum, and could lead customers to view ODF as more of an incumbent. But Driver did not discount OOXML, noting that vendors drive standards.

"In a perfect world, all the [standards] would come in from vendor-independent consortia and groups. In reality, this has not worked; vendors can move ahead of standards and do not get bogged down in the bureaucracy of working groups. Vendors can come back and have something standardized, or promote it in a more generic fashion," Driver remarked.

Driver added that a capacity for abuse exists and standards bodies must have a watchdog. "I am personally aware of vendors entering into standards bodies just to hijack the process, or to slow it down [so they can] catch up," he claimed.

STUFFING THE BALLOT BOX?

Technical nuances aside, irregularities prompted SIS, the Swedish Standards Institute, to invalidate its vote and cast an abstention. Microsoft was accused of attempting to influ-

ence the vote, by enticing its partners to join SIS in exchange for kickbacks. Suspicions were raised when 23 new members joined SIS the day before its vote to recommend OOXML.

Microsoft's corporate standards director Jason Matusow addressed the situation in his blog on Aug. 31. Matusow explained that a single Microsoft employee in Sweden crossed a line by sending e-mails to partners requesting that they join SIS and noting that Microsoft would act to offset the membership cost.

According to Matusow, the unnamed employee acted in a manner that was inconsistent with company policy, and immediately contacted the partners via e-mail and telephone after he realized what he had done. Matusow insisted that the process and the vote at SIS were not affected.

"If Open XML is to be approved for standardization at JTC1, it needs to do so by the book," he wrote. "We may all disagree about the book...but it is critical that these activities remain within the realm of ethical behavior as well as behavior defined by the rules for the JTC1 process."

In his version of the Swedish affair, Matusow noted that both IBM and Microsoft contacted SIS members and urged them to join the voting process, in accordance with the rules.

"In Sweden and elsewhere we have had discussions about Open XML with both National Body members and other partners directly. Some of these organizations have shared with us that IBM has approached them on this topic as well. This is not surprising as most of these organizations maintain relationships with both IBM and Microsoft," Matusow wrote in an e-mail.

Spokesperson Ari Fishkind said that IBM did not believe that responding to Matusow added any value to the discussion of a single international document format.

Gartner's Driver was not surprised by the outcome and said that whenever a group like ISO has a legitimate complaint, it has to err on the side of open disclosure. "If they had not pushed back, they would have created a precedent where they would have lost trust." ■

BEA's Future Based in Registry Repository

◀ continued from page 1

Flashline, which the company acquired just over a year ago.

Bill Roth, vice president of BEA's tools group, used an analogy from digital photography to explain why the registry and repository are the two most important building blocks for developers looking at BEA's software. "Today, when the chief architect at a large Midwestern retailer builds out her enterprise architecture, the way she communicates that to her developers is she prints it out and walks it over to them. If they look at it, they don't always take and implement it with the highest fidelity. If you have them working off of the same data in the same tool, the process will be much less lossy," said Roth.

He added that the repository and registry help ease pain



Source: BEA

BEA is banking on a single collaborative workspace, built around the Web and Eclipse, to connect all the appropriate pieces of an IT business infrastructure.

points around "the duplication of assets, the inappropriate use of assets, and forking or inappropriate versioning. One of the biggest problems that you have in a service network is the proliferation of rogue services. Customers have told me they have hundreds and hundreds of services, and that's when they need the registry."

Thanks to a new agreement with Adobe, BEA developers

may soon be storing Flex applications in those repositories. Under the agreement, BEA will include Adobe Flex Builder 2 with new copies of BEA Workshop Studio. Adobe, on the other hand, will distribute evaluation licenses for BEA's WebLogic Server with newly purchased copies of Adobe LiveCycle Enterprise Suite. The agreement means that developers building RIAs that work with WebLogic and AquaLogic deployments will be able to easily use Flex as the basis for such applications.

But new software wasn't the only news from BEA at the show. The company revised the pricing models for its Web server Java container. Whereas before, pricing was based on the number of physical CPUs in a server running BEA software, the company

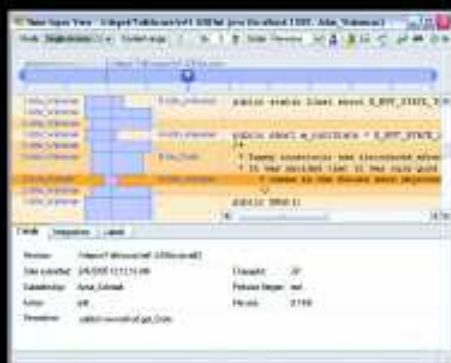
will now charge based on the number of software instances in use. This change is expected to mean higher prices for customers making extensive use of virtualized servers, but lower prices for customers running a single instance of BEA software on dedicated hardware.

A DIFFERENT WORLD

BEA's conference at the Moscone West convention center was held in the shadow of VMware's VMworld, which was taking place in the North and South halls. BEA took the opportunity to show off its virtualization wares, where it demonstrated virtualized servers based on BEA software that included only the barest of essential operating system components. These miniature VMs can be provisioned and spun off into virtual hosts, thus saving memory and resources. ■



Introducing Time-lapse View, a productivity feature of Perforce SCM.



Perforce Time-lapse View

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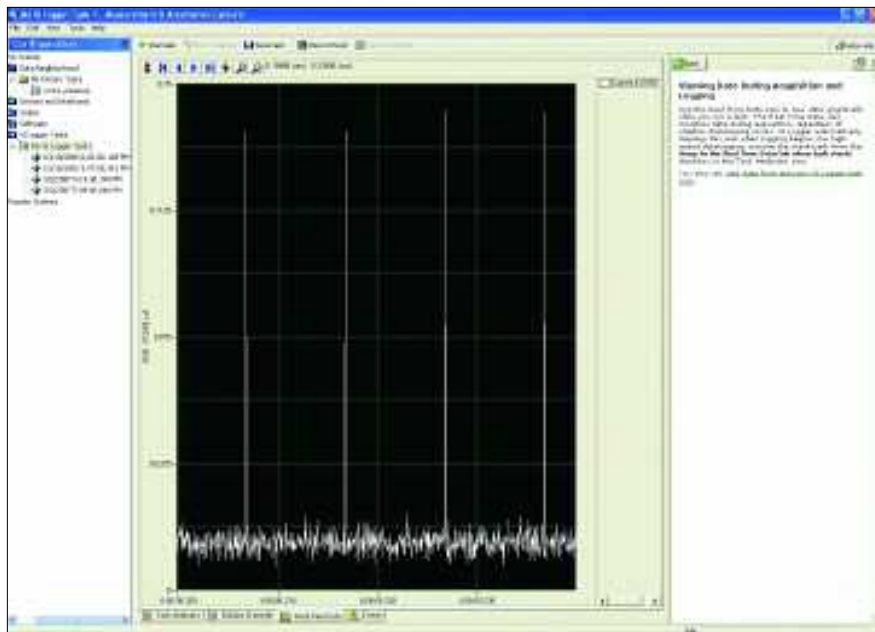
MontaVista Putting Penguins in Pockets

BY P.J. CONNOLLY

The mobile Linux bandwagon is getting crowded. MontaVista Software was to announce on Sept. 26 the second engineering drop of Mobilinx 5.0, the company's embedded operating system targeted at the mobile device market. This latest version of the platform includes new power management features, increased driver support, and support for Bluetooth, USB and WiFi connectivity.

MontaVista claims that the new release can boot in under five seconds, and likewise resumes from sleep and shuts down quickly. The Mobilinx update also incorporates the Linux 2.6.21 kernel, and integrates real-time patches, including high-resolution timers, threaded hardware and software IRQ, as well as preemptive real-time behavior. Mobilinx provides all of this in a package with a footprint that the company measures at just under 3MB.

MontaVista isn't shy about pointing out its contributions to the Linux kernel, either: According to the company, more than 90 percent of Linux mobile phones run its stack. In the 2.6.21 kernel, MontaVista claims responsibility for 291 changes, adding to its work in real-time behavior and extending platform support.



Monitoring and logging tools in Mobilinx 5.0 allow real-time views of a system, as well as offering playback of previous test runs.

Even though that accounts for only one-half of 1 percent of the changes, that ranks between the contributions of Hewlett-Packard and Oracle on one hand, and those of storage providers such as Veritas and QLogic on the other, according to a list of contributors published at the Linux Symposium in June in

Ottawa. Wind River didn't even make the list, being somewhat new to this space.

MORE THAN A BEEPING

Remember when mobile devices had plain LCD screens and made a handful of beeps, and that was it for entertainment? Well, those days are long past, and Mobil-

linux 5.0 is attempting to meet the demands of end users for a better multimedia experience by including the Gstreamer framework and adding the ALSA (Advanced Linux Sound Architecture) drive technology. The company is also including a GIMP toolkit for use with the DirectFB (Direct Frame Buffer) environment.

MontaVista designed Mobilinx Edition 5.0 to work with a variety of system designs, from single processors through multicore devices with dedicated cores—as seen in IBM's Cell processor—and at the high-end, symmetric multiprocessing deployments. MontaVista is using the Texas Instruments 2430 as a reference platform for Mobilinx 5.0; plans exist to make it available for the TI 3430, as well as hardware from Freescale and Marvell.

While working steadily to meet the Nov. 15 ship date for Mobilinx 5.0, MontaVista is discussing—albeit briefly—its plans for Mobilinx 6.0, which is slated for late 2008. It will focus on security features and interoperability, incorporating the requirements drawn up by MontaVista and its partners in the LiMo Foundation, which was set up at the beginning of this year to promote the development of Linux for mobile devices ■.

QNX Opens Source for Neutrino, Other Tools

BY P.J. CONNOLLY

Transparency in business and government is all the rage, and even businesses are beginning to see the value of opening up their development processes. QNX Software Systems has seen the light and in mid-September announced that it was opening access to the Neutrino real-time operating system and other components.

Developers can do more than look at the source code, according to the

Ottawa-based company. Should they decide to extend, improve or modify the source, they have the option of contributing their changes back to QNX and the community, or keeping their changes private. This is part of a new hybrid development model that QNX is using, one that mirrors the participatory nature of the open source community.

Dan Dodge, CEO of QNX, noted that “both commercial and hobbyist

developers will have unprecedented access to the ‘crown jewels’ of our software.”

The first wave of source releases in QNX's new scheme includes the Neutrino microkernel, the base C library, and a range of board support packages for common hardware platforms. Eventually, the company expects to release most of its code under the hybrid model.

QNX also launched its Foundry27

community portal, aimed at supporting the Neutrino RTOS and the company's Momentics IDE, as well as new community projects. Portal users have access to most QNX products with source code.

Noncommercial and academic developers are likely to appreciate the new order, as they will be allowed to use QNX's tools for free. But the company isn't giving away all of the farm: Commercial use of Neutrino will continue to incur royalty charges, and commercial developers are still obligated to pay for Momentics seat licenses. ■

FINGERPRINTS REACH NEW LEVEL WITH NEW SDK

BY P.J. CONNOLLY

In the world of biometrics, fingerprint-based authentication is James Bond, but fingerprint-based identification is straight-on Buck Rogers, in terms of the task's complexity, as well as the suitability of existing tools for the task. At least, that's been the case until recently, but Digital Persona's new One Touch I.D. SDK attempts to bridge the gap between science fiction and reality.

The SDK, launched in July, extends the functionality of the company's Gold, Gold CE and Platinum SDKs by enabling fingerprints to be used as an identifier, and permitting high-speed

searches against a collection of enrolled fingerprints. The company claims that in a data set of 1,000 identities, a fingerprint will return a user ID in less than two-tenths of a second.

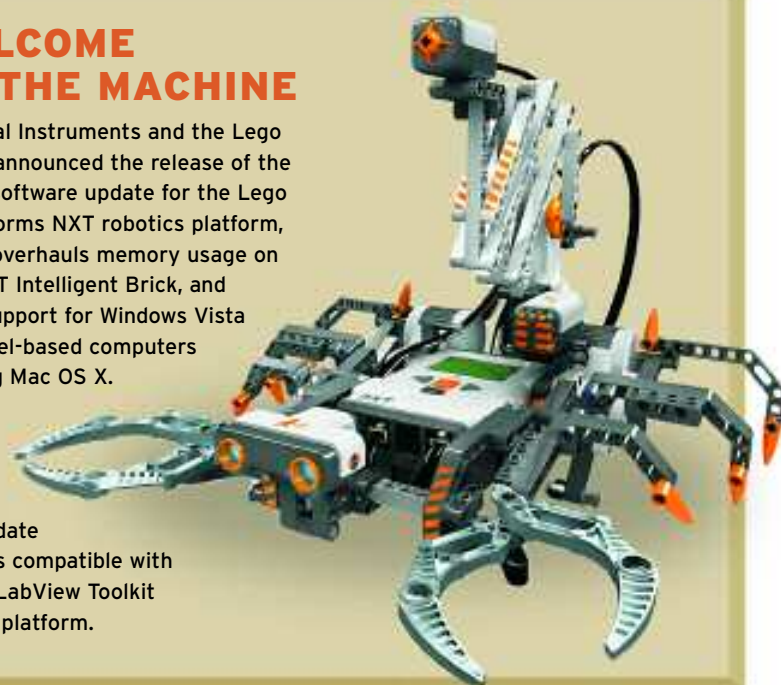
The One Touch I.D. SDK allows the use of two-finger identification, which results in higher levels of accuracy and security. It also allows the simultaneous use of multiple databases, which is intended to provide a scalable data environment with speedy response.

Maintenance can be a chore with fingerprint recognition, and Digital Persona attempts to address some of the burning issues with the new SDK. For example, it supports the use of so-called expiration templates that limit the validity of an enrolled fingerprint to one or three years. It also provides database clean-up features that the company claims eliminate fraudulent users and redundant records. ■

WELCOME TO THE MACHINE

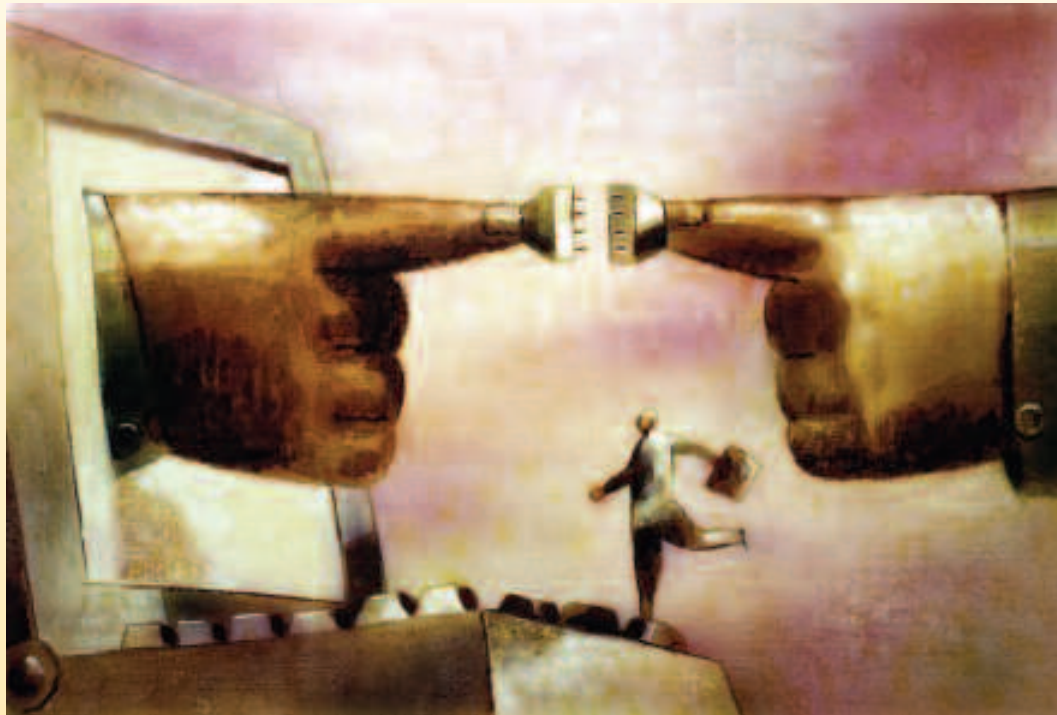
National Instruments and the Lego Group announced the release of the latest software update for the Lego Mindstorms NXT robotics platform, which overhauls memory usage on the NXT Intelligent Brick, and adds support for Windows Vista and Intel-based computers running Mac OS X.

The update remains compatible with the NI LabView Toolkit for the platform.



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Can Linux Get a Lift From Eclipse?

Yes, but not from native Linux development



Eager to shed its reputation as a tool just for Java developers, Eclipse has quickly embraced newer languages such as PHP, Python and Ruby—as well as older ones like Ada, COBOL and C.

But when it comes to enabling native Linux development, Eclipse isn't moving as fast. It's not uncommon for applications originating from Eclipse to target Linux servers, but few are developed under the open source operating system itself, said Forrester analyst Jeffrey Hammond. In fact, only 9.6 percent of Eclipse download requests are for the Linux platform, compared with 86.7 percent for Windows, according to recent

BY JENNIFER DEJONG

data from the Eclipse Foundation.

Given that Eclipse and Linux are among the best-known open source efforts, it's ironic that to date there is so little synergy between them. SD Times asked a handful of Eclipse and Linux experts why this is so, and also got them to weigh in on where future Eclipse/Linux growth is likely to come from.

One reason for the relative lack of Eclipse tools for Linux is that traditional Linux developers don't want them, the experts said. These developers have long worked with command-line offerings, and they aren't inclined to make the leap to an IDE, the experts said. As new, younger Linux developers—brought up on IDEs—emerge from colleges and universities, they are expected to embrace Eclipse. But in order to attract and retain these younger developers, Eclipse must be fine-tuned to work better with each of the different Linux distributions, the experts said.

Eclipse is expected to boost Linux development overall, but growth won't come from native Linux development per se. Instead, it will likely result from the use of Eclipse as a cross-platform development environment, where an application can be written without hard-coding it to any one operating system, the experts said.

"That's good for Linux," said IBM open source and Linux marketing strategy manager Adam Jollans. "Cross-platform makes it easy and cost-effective for ISVs and other developers to target Linux and Mac OS in addition to Windows."

WHAT'S HINDERING THE ADOPTION OF ECLIPSE ON LINUX?

Eclipse runs on Linux, but getting it to integrate well—essentially to take on the Linux way of working—remains a challenge. The Eclipse on Linux project, made up of participants from the key Linux distributions, including Debian, Fedora, Gentoo, Novell, OpenSUSE, Red Hat and Ubuntu, was launched in December 2006 to take on that task. Key issues the group plans to address include:

- Simplifying the creation of Eclipse packages for Linux platforms, and standardizing the process for doing so across multiple distributions of Linux. In other words, use Linux package management methods to distribute Eclipse.
- Enabling the Eclipse Update Mechanism to work with the Linux multi-user system model. Geared to Eclipse, the update mechanism assumes it's working with a single-user system.
- Providing better integration options with Linux systems and methodologies, such as Linux system libraries, GNU Autotools and RPM, as well as better support for scripting languages like Perl and Python.
- Working with the open source community to promote the adoption of Eclipse on Linux.

Sources: www.eclipse.org/proposals/linux-distro, wiki.eclipse.org/index.php/Linux_Distributions_Project

Hammond agreed that the use of Eclipse for cross-platform development is where future Linux growth lies. "The important thing is that Eclipse become a good environment for targeting Linux."

THE NEW LINUX DEVELOPER

Long interesting to the very technically proficient, Linux must begin appealing to a broader pool of Linux developers, said Eclipse Foundation director Mike Milinkovich. "To be completely honest, hard-core developers [building Linux applications] aren't going to use Eclipse." They have relied on command-line tools such as the text editors Emacs and vi for years and years, and those tools are

ingrained in their culture, he said. "But having modern tools like Eclipse is an important enabler for the future growth of Linux."

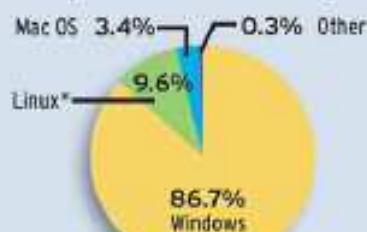
Hammond agreed that vi and Emacs diehards don't use IDEs, but added, "Even the most talented among us age. The number of developers skilled in command-line tools will decline, and as new committers come on board, there will be a changing of the guard."

Addressing the needs of that new guard is what Novell senior software engineer Matt Ryan had in mind when he wrote the proposal for Eclipse on Linux, a project adopted by the Eclipse

continued on page 42 ►

LINUX: STILL A BITE-SIZED PIECE OF ECLIPSE PIE

Download Requests by Operating System Platform Percentage



* All major Linux distributions include Eclipse, so Linux developers may get Eclipse from the distribution, not from the Eclipse download.

Source: Eclipse Foundation, May 2007

Can Linux Get a Lift From Eclipse?

◀ continued from page 41

Foundation in December 2006. "Eclipse hasn't enjoyed the type of success on the Linux platform that one might expect," Ryan noted in the proposal. "The open source heritage of both Eclipse and Linux would lead one to assume that Eclipse would be highly successful on Linux, but [that hasn't happened]."

Eclipse on Linux (also known as the Linux Distro project) aims to change that by promoting the adoption of Eclipse as an application development environment for Linux. Eclipse is included in all of the available Linux distributions today, noted Milinkovich.

That's a step in right in the right direction, but isn't enough to get most next-generation Linux developers to start using Eclipse, Ryan told SD Times. These younger developers have a different mindset than their predecessors, he said. "They see Linux as a strategic platform for conducting business." And in order to use it effectively within Eclipse, they need some help, he added. "They want a version of Eclipse that's packaged, tested and [sealed with] a stamp of approval for the Linux distribution they are using."

The problem isn't that Eclipse doesn't run on Linux—it actually runs well, said Ryan. The issues that arise have to do with how Eclipse is installed on the developer's system, and how it is managed once it is installed.

"Eclipse was built with the assumption you are using a single-user system [such as Windows]," explained Red Hat senior software engineer Andrew Overholt, a key contributor to the Linux Distro project. Among the issues the project is addressing is a standard way of building applications from source code, and adapting the Eclipse update mechanism so that it works with the Linux multi-user system model, he said.

A key goal of the project is to fine-tune Eclipse for each Linux distribution, said Overholt, but he did not specify a time frame for completion. Forrester's Hammond noted that, to date, Eclipse is packaged as part of only one Linux distribution: Red Hat-sponsored Fedora. Asked whether he expects use of Eclipse as a Linux development environment to grow, Hammond replied, "Yes—progress is steady but slow."

TAKE NOTES, ISVS

Real progress won't come from native Linux development in Eclipse. A more likely source of growth is the use of Eclipse as an underlying framework for applications software, not just development tools, such as those used for embedded projects. "Eclipse is emerging as a basis for applications," said Milinkovich.

A case in point is the most recent version of Lotus Notes, IBM's collaboration and messaging offering. "Notes 7.0 was



Younger developers want a version of Eclipse that's stamped for approval for the Linux distribution they're using, says Novell's Ryan.

hard-coded for Windows," said IBM's Jollans; a Mac OS X client was also available. But for the 8.0 release, IBM rebuilt Notes, taking advantage of Eclipse as the underlying framework, he said. This allowed IBM to unify developer efforts and deliver a consistent user experience.

"Notes 8 looks like Windows for the Windows version, and it looks like Linux for the Linux version," Jollans noted, although the Linux version, like the earlier Mac OS clients, lacks the specialized features of the administrator and developer roles. A Notes 8 client for Mac OS X is planned as well, he said.

Jollans said IBM singled out Notes for a cross-platform development effort because the company wanted to prove that approach can work "even for an application as complex as Notes," he said. "Notes is nontrivial. If it can work for Notes, it can work for other offerings."

IBM believes that Eclipse-based development will convince ISVs to target more than one operating system, Jollans said. "Most ISVs aren't going to develop a client application for Linux, when Windows has 80 to 90 percent of the market." But the cross-platform approach lets them increase the size of the markets they serve, while also reducing the costs of developing for each market, he said.

Jollans acknowledged that some fine-tuning is required to produce versions for three different operating systems. "But it's impressive to get the same environment on all three: Linux, Mac and Windows," said Linux Foundation chief operating officer Dan Kohn. "It works exactly the same on three different platforms."

Asked how important Eclipse is to the future of Linux, he said: "I focus on the cross-platform aspect of it. Eclipse is a greater indicator of where apps are headed." Eclipse and Linux have a lot in common, he said. "They are both open source. If there is something you want [to develop], you don't start over from scratch. You just write the new feature on top of what's already there." ■

Linux and Eclipse: A Good Match for Embedded Developers

BY JENNIFER DEJONG

In the enterprise development arena, Eclipse and Linux have barely gotten together. But when it comes to writing embedded applications, the two walk hand in hand. "In our world, Linux is huge, and all the providers have Eclipse-based tools," said LynuxWorks vice president of marketing Robert Day.

Eclipse-based IDEs have caught on among embedded Linux developers because the process of writing applications to run on small devices, such as cell phones, is by its very nature more specialized and complex than creating enterprise applications, he said. "It's a two-phased thing. First, you have to get Linux running on the hardware. Then, you have to write the actual application." In that environment, it's more difficult to rely solely on command-line tools, such as the GNU offerings traditionally favored by embedded Linux developers, Day added.

Wind River Systems senior engineering manager Doug Gaff agreed. "Eclipse has lowered the barrier to entry for application development in Linux," he said. "When you work in a

Linux development environment, you have to get up to speed on so many things." And Eclipse just makes it easier to get started, he said.

Competition among cell phone makers and service providers has also given Eclipse a boost, said Day. "The market pressure is huge." The number of cell phones produced is phenomenal, and getting new offerings out quickly is essential to staying in busi-

ness. Given that scenario, relying on cell phone providers' software development kit is too time-consuming, even for highly skilled embedded developers, said Motorola architect for developer tools Christian Kurzke. "With SDKs, there is a barrier to entry. Developers have to integrate them with their own IDEs."

Even though embedded Linux developers have embraced Eclipse, command-

line tools are not a thing of the past, said Wind River product line manager for Linux tools Sven Dummer. "There are still people who like to work with the command line, who like to work with the shell." That culture won't go away just because GUI tools are available, he said. "The two [cultures] will exist side by side. Many Linux developers like to switch between different tools. Freedom of choice is a high value for them." ■

UNDER WAY AT ECLIPSE

Three projects that matter for Linux developers:

C/C++ Development Tooling (www.eclipse.org/cdt/): C/C++ is the language of choice for Linux developers, which makes CDT a key Eclipse project for that audience. The project delivered CDT 4.0 this summer, which, according to Wind River Systems senior engineering manager Doug Gaff, is "the best IDE out there for Linux development in general."

Tools for Mobile Linux (www.eclipse.org/dsdp/tml/): This project is essentially the Linux counterpart to Mobile Tools for Java, according to TML project lead Christian Kurzke, architect for developer tools at Motorola. Although it is still in the incubation stage, its most significant contribution is expected to be

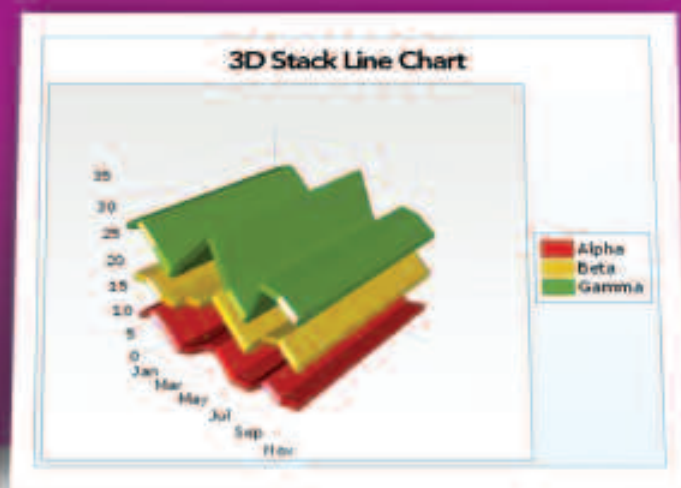
mobile device emulation tools that simulate end-to-end environments for testing. Device emulation is crucial for embedded developers, who are often required to create mobile applications before hardware prototypes are available.

PHP Development Tools (www.eclipse.org/pdt/): Dynamic programming language PHP has a natural affinity with Linux, because PHP applications are designed for the Apache Web server, which runs Linux, said Zend product manager Yossi Leon, project leader for PDT. Still in the incubation phase, PDT was expected to deliver version 1.0 of the project last month. It will include an editor to develop PHP code and a debugger.

—Jennifer deJong

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FROM THE EDITORS

Microsoft's Setback Is Good News

Microsoft's failure to gain fast-track ISO approval for Office Open XML, the proprietary file formats used by Office 2007, is good news. We're encouraged that the international members of ISO resisted the company's attempt to ram an impossible specification through the standards process. We hope that those members remain strong and reject OOXML in its next bid for approval, in April 2008.

At issue, frankly, is what a standard means. In theory, a standard should be clear and relatively unambiguous. It should serve the public interest by allowing different entities to create interoperable or compatible implementations. A standard should also provide an agreed-upon platform for future implementation.

Microsoft's OOXML is none of those. It's a specification that's so incredibly convoluted that nobody outside of Microsoft will ever be able to implement it fully. That's what Microsoft wants, of course. If OOXML is approved by the ISO, the company can then sell its "standards-based" Office solutions to government entities. However, once those entities start creating documents in OOXML formats, they'll be locked into Microsoft's software to read and manipulate those documents. Also, businesses and the general public will also need to buy Microsoft's software to read and manipulate those documents. Ka-ching!

There is another document specification, approved by the ISO and widely accepted by the industry: Open Document Format. Microsoft, as far as we can tell, has never explained why OOXML offers any public benefit over the already-approved (and far simpler) ODF specification. That's because, we believe, there isn't one. All OOXML offers is obfuscation and proprietary lock-in. ISO did its job by sending it back to Microsoft for revision.

BEA Stays a Step Ahead

This year's BEAWorld conference took place in the shadow of VMware's VMworld 2007, but BEA Systems still managed to catch a glimmer of the spotlight when it announced its latest vision for SOA. Its vision is about visibility and collaboration, not about plumbing: BEA wants developers to stay in step with one another.

BEA rolled out last year's vision (SOA 360) over the past year, updating its AquaLogic, WebLogic and Tuxedo product lines. SOA 360 was the promise of integrated architectures throughout business. BEA has not yet fully delivered on that promise, but nevertheless has produced solid products that are on par with the best of its competition.

The danger of "visions" is that they are often overarching. However, BEA does have a fair chance of standing out in the coming year. The idea behind this year's vision, Project Genesis, is to unite SOA and BPM with enterprise social computing. Enterprise social computing is where BEA stands out.

Over the past year, BEA has launched innovative products that embrace social computing in a governed context that IT can trust and control. So, for example, a query in AquaLogic Pathways for documents tagged "SOA" will retrieve related persons and identify their expertise, much as LinkedIn does.

Those are products that are already on the market. By contrast, top competitors, such as IBM and Sun, are miles behind. In some cases, the competition hasn't started talking about the human factor yet. In other cases, they're talking but aren't delivering more than beta software with functionality. A Sun distinguished engineer discussed social computing during a presentation this summer but had nothing to show for it.

BEA's latest deliverable is a new version of AquaLogic Registry Repository, which is designed to normalize metadata that describes software artifacts and automate the collection of that metadata.

BEA is well on its way to realizing the goals of Project Genesis, which has the potential to be a key differentiator. BEA continues to surprise, at first with the quality of its Java servers, and then with its SOA plumbing. We're delighted to see the innovation continue. ■

The Facade of Security

Bob: Hey, that AJAX application we just deployed is registering methods that allow system() to be called. That's dangerous; we are vulnerable to attack!

Alice: Well, the OWASP-recommended counter-measure is to implement a proxy facade. That will limit access to only the functions we want to permit.

Bob: Great idea! We'll address the vulnerabilities in our code with more vulnerable code! I'll get on that right away.

Yes, that's right. The suggested solution to address vulnerable code is to write more code in the same language. Code that may be just as vulnerable as the original code it's meant to protect. If that sounds like protecting a sand wall with another sand wall, well, that's because that is exactly what a code-based proxy facade ends up doing.

A proxy facade acts as an interface to a system. It presents limited access into the system, and has the additional benefit of providing the opportunity to implement additional functionality that may not be appropriate to implement within the actual system.

A good example of a proxy facade is an ATM. The interface and therefore functionality presented to the user is a limited subset of the functionality available in a much more comprehensive system. The ATM proxy facade severely limits access to the broader service by controlling which functions the user can perform, and further restricts the type and amount of input that can be entered.

A bad example of a proxy facade is the use case in which it is implemented in order to secure vulnerable code, especially in a Web-based application. The facade of an ATM is hardened and secure; there's no real way for an attacker to manipulate the facade when interacting with it. That's just not true with a Web-based application.

A facade is defined as a "superficial appearance or illusion of something." In the case of securing code, that illusion is that more code—generally written in the same vulnerable language—can secure existing vulnerable code. In reality, I prefer another definition of facade: "a showy misrepresentation intended to conceal something unpleasant." Something unpleasant indeed is being concealed with a proxy facade: vulnerable code.

You could implement the proxy facade in another language, but that is likely to carry with it its own set of vulnerabilities and issues. Would you then implement another facade to secure that facade?

Just how many sand walls are we going to build before we realize that we can't secure insecure code with more insecure code?

FIRST COMMANDMENT OF SECURITY

One of the primary reasons there are vulnerabilities in applications is that as developers we still aren't following the first commandment of secure development: *Thou shalt never trust the user.*

The ability to execute system-level commands in any language or toolkit comes about mainly because we don't do

a good enough job of examining user input and ensuring it doesn't contain malicious input, like an attempt to call system(). We check parameters to make sure they aren't null, we may even validate length if there is a use case that requires a specific minimum and maximum, but we don't generally examine the data in minute detail. We just

want to make sure it's "close enough," but, quite frankly, when it comes to security, close enough is off by miles.

It's ridiculous to assume that if we didn't properly validate the user input in the original code, we *will* properly validate the input in the proxy facade code. It's more likely we've just added another layer of complexity to the app without really addressing the original vulnerability.

Maybe, instead of validating user input on the server through a proxy facade, we'll use client-side code such as JavaScript or VBScript to validate user input. Hello?! If we don't routinely check for malicious content on the server side, how likely is it that we would check for the same on the client? Not likely.

Trusting client-side validation has other issues—primarily that it can easily be subverted and ignored by attackers. Once I know the URL to which to submit the request, it's a fairly simple task to craft the appropriate URL and query parameters (assuming it's a GET) to bypass the client-side validation, or to rewrite the page without the validation (if it uses POST) so I can submit whatever I want.

IT'S STILL MADE OF SAND

No matter how high, how thick or how many facades you code to protect your application, they're still all made of the same sand. The facade is still vulnerable to the same language- and platform-based vulnerabilities that will invariably crop up in the future, and instead of being tasked with addressing a new vulnerability in one application, you'll need to address it in two, or three or more. That's a lot of hours of development and testing—hours during which your application and your facade are vulnerable to attack. Hours that are more likely going to stretch into days or even weeks while you await the right "maintenance window" in which to

Lori MacVittie



Guest View

deploy the new patches.

Basically, using insecure code anywhere to secure insecure code should not be on anyone's list of best practices.

USE BRICKS, NOT SAND

The concept behind a proxy facade isn't a bad one. When you want to control access to a building, you erect a wall with a limited number of entrances through which access can be easily controlled. The issue with implementing a proxy facade is that all too often it is implemented in the same vulnerable language as the original code or services it's meant to protect.

Interestingly enough, while OWASP recommends as a counter-measure a code-based proxy facade, other Web application security-focused groups such as WASC (Web Application Security Consortium) recommend a Web application firewall—effectively a brick proxy facade—instead. For SOA and REST-based services, a gateway capable of implementing a brick proxy facade through service virtualization is also a good option.

As developers, we tend to get our hackles up whenever the term “Web application firewall” comes up in conversation. We are the kings of our sand castles after all, and woe unto those who speak ill of the king and suggest that perhaps we aren't capable of securing our own castle. Suggesting we may need some outside help tends to put us on the defensive. There's nothing we can't do with code, after all, given enough time.

The problem is that we no longer have the time. We're overburdened with getting up to speed on emerging technologies, maintaining existing applications, troubleshooting defects, developing new applications, and interfacing with business analysts. We are trying to cram every aspect of application development—security, integration, design, development, testing, process management, monitoring and performance—into one 24-hour day, and one person.

It's just not possible to do it all and do it all *well*. That's why apps end up being vulnerable, why data validation routines aren't as thorough as they should be, and why every once in a while there are bugs—I mean random features—in our code. And adding yet another application—the proxy facade—to the list of apps that need securing, maintaining, testing and deploying exacerbates the problem and even further limits our available time.

As developers, we need to start offloading redundant tasks and recognizing when the answer isn't always “more code” but instead lies in an alternative solution. Building a proxy facade out of more sand just doesn't make sense. Building one out of bricks will ensure that our sand castle really is protected for longer than it takes for the next wave of vulnerabilities to crash into it and wash it away. ■

Lori MacVittie is technical marketing manager at F5 Networks, which sells application and network security products.

LETTERS TO THE EDITOR

Ada's Tried and Tested

The article “When Failure Isn't an Option,” [Aug. 15, page 26] requires some clarification. It states that AdaCore is a member of the JSR 302 (“Safety Critical Java Technology”) Expert Group. This is not accurate. A member of AdaCore's technical staff, Ben Brosgol, is an individual member of that expert group, but he is not there representing AdaCore.

One reason that AdaCore is not a corporate member of the JSR 302 group is that we have seen no interest in safety-critical Java from our customers. We produce development environments for safety-critical Ada systems, and our customers are much more interested in using tried and tested technology for a language—Ada—that was designed precisely for these sorts of applications, than to take the risk of moving to a language that intrinsically introduces major complications into the certification process.

We understand that some organizations make technology decisions based on what's popular vs. what's technically more fit to purpose, and that was the essence of my quote: “Language choice has always been significantly a matter of personal taste and enthusiasm, and there are lots of Java enthusiasts around.” Unfortunately the quote was positioned so as to make it look like I agreed with that rationale.

As I explained in some other material that I furnished to the author, the real issue for managers of safety-critical projects is not which specific language the staff is familiar with—a competent programmer in any modern programming language should be able to learn a new language in short order. Rather, the more significant (and much harder to find) talent is the ability to develop large, safe systems, and that skill is rarely taught in universities. Java brings no advantages here.

Safety-critical Java is attracting a lot of “buzz” these days, in part because the technical issues that it raises tend to draw

researchers who like to solve hard problems. But it is still very much a work in progress, as the article notes, and frankly a much riskier choice than Ada for a community that rightfully prides itself on conservatism. From our vantage point, Java seems a language of chance, not a language of choice, for safety-critical applications.

Robert Dewar

President and CEO
AdaCore

OPEN DOCUMENT FORMAT EXISTS

I am in complete agreement that the approval of the OOXML specification as an open standard would be major setback in open communications and interoperability [“Zeichick's Take: Microsoft OOXML Setback Is Good News,” News on Thursday, Sept. 6]. An acceptable open standard exists in ODF. To insert OOXML as a so-called standard would be a step backward. If Microsoft wants to participate in the open standards arena, they are free to implement ODF.

Frank Hill

Sandersville, Ga.

BUSINESS MUST DRIVE SOA

Thanks for this excellent column [“Three Definitions of SOA,” Aug. 1, page 40]. I'll spring for the latter two definitions: SOA is an enterprise strategy, and it is based on an architectural principle. It has to be driven by business goals and underlying needs. In order to increase business agility, services of the resulting “Goal-Driven Service Oriented Architecture” that are discovered on the basis of business goals must help their organization in aligning IT to changes swiftly and coherently.

Birol Berkem

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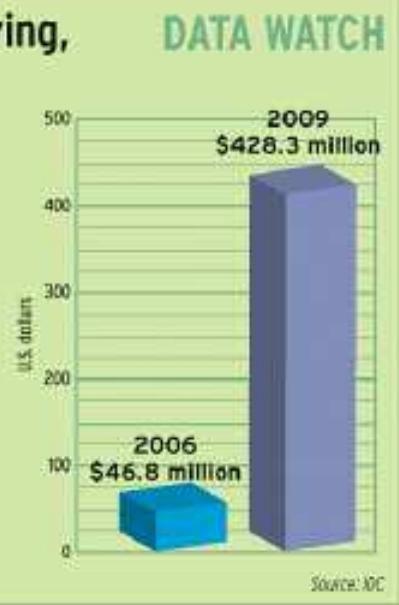
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Social Networking Growing, Says IDC

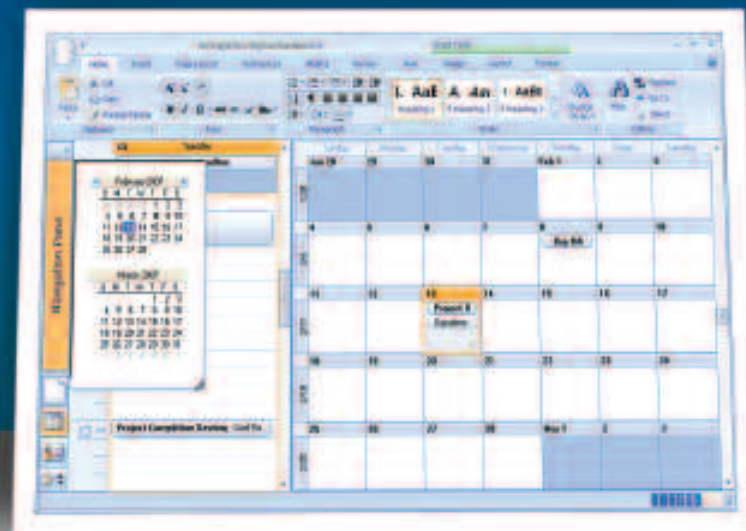
The phrase “social networking” immediately brings Facebook and MySpace to mind, but a new report from IDC indicates that it's become big business and is going to get a lot bigger, soon. By 2009, the market for social networking applications is expected to be more than nine times the size it was in 2006, notes the study, “Social Networking Application Market Overview and Forecast,” which predicts a jump from US\$46.8 million to \$428.3 million by 2009.

The report also indicates that the significant market growth will be less dramatic after 2011, as social networking functionality is built into core applications such as e-mail and instant messaging.



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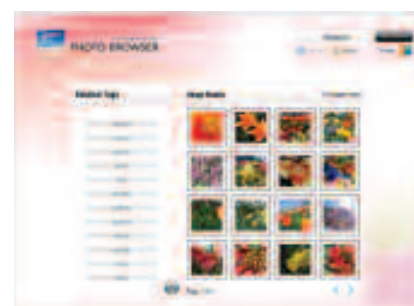
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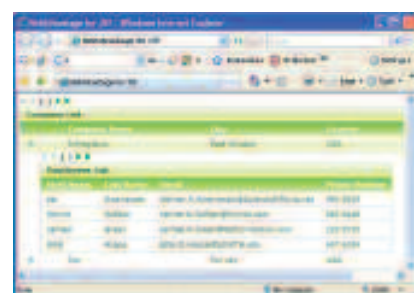
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Is SOA Quality a Priority?

SOA testing is in the media a bit these days as those who implement SOA have to make sure those new services, abstraction layers and orchestrations are ready for prime time. However, the common approach to SOA deployment is: development now, requirements maybe, and testing if we have the time. You can't afford to make that mistake; there is too much on the line with this stuff.

Indeed, a recent study by Nucleus Research discovered that existing SOA implementations achieved limited success when considering ROI. Only 37 percent of enterprises have achieved a positive return on their investments from SOA deployments. While the root cause of these low ROI numbers can be attributed to many factors, the key issues relate to a lack of planning and a lack of testing.

Central to this problem is the fact that quality assurance, in general, is an often overlooked concept to most developers and designers. I mean, you're admitting that your code and resulting services need to be tested. How can that be?

Moreover, those who run SOA projects don't allocate a lot of time for testing, and typically when projects are behind, testing is sacrificed. But the complex nature of SOA means that testing is that much more important, con-

sidering that mistakes and bad services can ripple throughout the architecture.

There are many dimensions to SOA testing. They include services, processes, performance, and holistic or system testing.

Service-level testing is the most important, since core services are the foundation of the SOA. However, services are written very differently, depending upon the developer. Services may also be built on top of existing interfaces and APIs, and thus are even more complex and more in need of quality assurance testing, since you're placing an interface layer on top of an interface layer. It's a matter of validating the services for their intended use, verifying that the interfaces function correctly, and validating both WSDL and schema. Also, you need to consider diagnostics for design time and runtime, and make sure to address those older but important notions of unit, functional and regression testing.

In addition to service-level testing, we have to test the way services are abstracted into processes and composites. Since these are typically exposed as services themselves, it's just a matter of

testing another level up from the core services, as units, and regressing down through the services that they leverage (unit and system). This is very much like testing object-oriented systems, but these guys have binary interfaces and heterogeneous development and runtime platforms, thus the complexity is much higher.

SOA Watch



David S. Linthicum

Performance testing is perhaps just as critical, considering that most of the quality problems I run into when deploying SOA relate back to performance. Here is where you test against the SLAs established within the project, and learn how to spot bottlenecks, such as slow services, that can bring your SOA down to a crawl. Performance testing in the world of SOA is a matter of testing at the service, composite, process and system levels. You look at overall performance first, then decompose the architecture down to functional primitives to isolate the system's problem components. You need to create an ongoing performance testing approach since so many performance issues develop over time as message and data traffic increases or changes.

Testing services, however, requires testing tools, unless you plan to write your own, which I don't recommend. While there are a few players in the services/SOA testing game, Mindreef's SOAPscope Server is one of the few that I keep seeing in use. Mindreef provides tools for automated testing and debugging of Web services and SOA projects, from validation of the service, testing to form and function, and performance testing. There are other tools as well, each taking a different approach to SOA quality, so do your research. I would recommend only using tools that have well-defined approaches to testing, or step-by-step procedures for leveraging their testing tools for your SOA.

What's key here is to remember that you're testing an architecture, and not an application. Thus, the complexity of the system, and the approaches and tools used for testing, goes way up. It's important that you have a solid test plan, an arsenal of testing tools and techniques, and the time needed to test the architecture and correct any problems before they are found by the end user. Consider the systemic and business critical nature of the architecture.

Just to be very clear: Don't skimp on testing! ■

David S. Linthicum is a managing partner with Zapthink. Reach him at david@zapthink.com.

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Open Documents: An Implementer's View

As a committer on the open source Platypus project (platypus.pz.org), I have a direct interest in the heated debate regarding approval of Microsoft's Office document formats as an international standard. Platypus uses a non-XML command language to specify document formatting, and it generates documents in one of three formats: PDF, HTML and, some day, a version of Microsoft Word. (Other formats will surely be added, but those are the three we're starting with.) The PDF output is coming along well, and HTML recently got off the ground, but Word is stymied because we have no way of deciding which version of Word to code for.

Our initial plan was to use WordprocessingML, which is Microsoft's Office 2003 XML document format. This format has the advantages of being able to be read in Office 2003 and 2007, and it's a clean spec that is fairly easy to implement. The problem is that it's a subset of what Word can deliver, and so I have to decide: Should we go with this 2003 subset or with the fuller 2007 format (which is what Microsoft is trying to push through the certification process)? Nothing prevents us from supporting both formats but the pragmatic recognition that time on Platypus comes out of the small wedge of dis-

cretionary time its contributors can allot, so the idea of implementing the same format two different ways has little appeal. Either way, we'd like to see some resolution before the end of 2008, which is when we're likely to be finished implementing PDF and HTML functionality.

My view on the debate over approval of Microsoft's formats by the International Organization of Standards (ISO) is that both Microsoft and opponents have confounded the debate by their mutual animosity. Microsoft has submitted a 6,500-page proposal called Office Open XML (OOXML) for ratification. Among format standards this is very large. However, because it documents a de facto standard that evolved over many versions of Windows, Excel and so on, there are lots of historical twists that require documentation. This aspect was particularly emphasized by IBM, which vehemently objected to a standard that includes a date field that has to be computed differently depending on which version of Office you're being compatible with. This argument has struck me as unconvincing. Of course in a green-field standard you wouldn't include such a silly

thing, but when you're codifying a historical evolution, then you must include the ugly details. (Lots of ISO-approved standards have similar junk in them. Look at the C++ standard for some examples.)

Google has complained OOXML contains Windows artifacts such as bit fields that have nothing to do with documents per se, but are included because at one

time they were part of the format. Like IBM's complaint, this objection is too low-level. Implementers such as I am with Platypus don't have an issue with standards that are ugly from warts, knobby growths and scaly cruft. The PDF and HTML formats have plenty of that. Cruft is an expected effect of a document format.

However, the complaints don't articulate the core problem: Why carry forward any of the old silliness? Why didn't Microsoft in fact use a green-field approach to its XML formats? If there is a weird date field, clean it up in the XML and handle the translation back and forth through a converter. And then publish the source code to the converter. Then, we can all see the weird date thingy or the odd Windows bitfield and know that

Microsoft will contain those embarrassments in order to provide pristine XML formats. This was the path that Redmond chose with its 2003 Office XML, after all.

There is a reason for going green field, however unpleasant it might be to consider: By going to a new, clean XML format, Microsoft would have no defensible reason for not using the existing Office Open formats, which are clean and fairly well thought out. Why would we want another set of XML document formats? However, by offering the possibility of backward compatibility with the vast number of existing Office documents, the Microsoft proposal has added value that it would not otherwise have. To expect the ISO to order Microsoft to abandon all the historical baggage is tilting at windmills. Instead of opposing the proposal, what I want is a means of validation. Give me the tools to validate how my generated document will look on Office XP and older versions of Office (a viewer with version-selection capabilities, for example, would do), and give me tools to convert old documents to and from the XML format. And give me source code to those tools. If I can see the mapping and can convert to and from other formats, OOXML will get no condemnation from me. ■

Andrew Binstock is the principal analyst at Pacific Data Works. Read his blog at binstock.blogspot.com.

Integration Watch



Andrew Binstock

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Sophistication About Concurrency

"It ain't what you don't know that gets you; it's what you think you know that ain't so." This aphorism credited to Will Rogers could be emblazoned above the workspace of any programmer interested in performance, especially performance relating to parallel programming. I was recently interviewed by Carl Franklin and Richard Campbell for the ".NET Rocks" podcast (www.dotnetrocks.com/default.aspx?showNum=269), and while I generally achieved a level of reason, wit and overall wisdom otherwise unmatched in the history of recorded speech, this is a point that I wish I'd made a little stronger.

A lot of discussion of parallel programming is based on a mental model of hardware that no longer holds true: a clockwork von Neumann model in which memory access and instruction execution take more or less the same amount of time. This is the model that we grew up with, and it's fantastic for understanding computer fundamentals. Unfortunately, the reality of computer hardware has diverged so much from this model that it's become counter-productive, at least as far as thinking about concurrency.

The major fallacy that this model promotes is that coordination is "no big deal," that the retrieval of instructions and data from the "storage unit" is not something

that needs to be included in thinking about how things work. With branch prediction, caches and out-of-order execution, this model has been misleading for some time, but it's only now, as concurrency rises to become the primary concern of performance, that the model has become actively misleading.

A model that I prefer is to think of the processing unit (with multiple cores and chips, it seems wrong to speak of any single one as the "central" processing unit) as something akin to a ziggurat or Incan step pyramid. At the pinnacle is a small area that is the center of action—the registers. Ultimately, everything has to be moved to this level.

Work at this level runs at a boggling pace: less than a nanosecond to execute an instruction. (I can't say "nanosecond" without mentioning that light itself can barely make it around the perimeter of a CPU in that time.)

The next steps down are more capacious, but still quite small in the scheme of things. These are the on-chip caches. Moving data from these levels to the registers takes some time, but basically these are the main work-

ing levels for high-performance code.

Below the caches, the "steps" start becoming much more significant and start having room for much more data. There's a step for accessing main memory, a step for crossing a process boundary, a huge step for accessing the disk (whether for virtual memory or persistent storage). The base of the ziggurat, I suppose, is the Internet, with its uncountable petabytes of data and response times that can make a human impatient.

Cores, chips, coprocessors and grids create a kind of Tikal of processing, albeit one with "bridges" between the pyramids at different steps. This model makes, I hope, the problem with purely automated concurrency clearer: The overhead of distributing a calculation to the "next pyramid," retrieving the partial results, and then reassembling them into a coherent whole, is very large. Even loops doing complex calculations will generally take at least several hundred iterations (and often thousands) before distribution makes sense. And that's when talking about calculations distributed between cores, not over a cluster of machines!

Windows & .NET Watch



Larry O'Brien

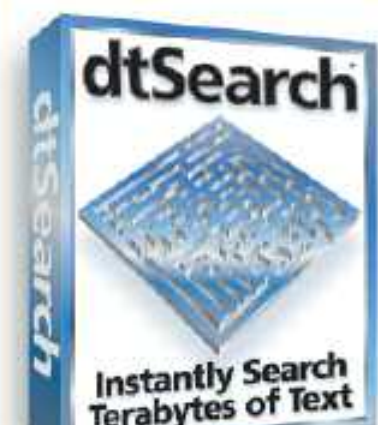
True, when working with large data, such as multimedia, vectorizing loops is a no-brainer. But it's not sufficient (or wise) for many situations, and dependencies carried by the loop can zero out the benefits. The same logic, unfortunately, argues against the not-uncommon belief that a sufficiently smart library (or platform) can do the distribution. While platforms will undoubtedly add more and more asynchronous capabilities, concurrent performance can only be regularly achieved with a programmer-provided hint.

Which is to say: code. Programming languages and the people who use them are going to have to incorporate more sophisticated concurrent programming models, as I discussed in my previous column ("Talkin' Concurrency," Sept. 15, page 57) and which I discussed in the podcast.

And as far as the level of reason, wit and overall wisdom achieved in the podcast: How stupid am I to invoke Will Rogers and a quote about overconfidence when pointing people to a podcast of me talking about something as complex as concurrent programming models? There are probably things in the podcast that are not just wrong, but positively moronic. Please write and let me know what they are. It's the only way I'll learn. ■

Larry O'Brien is a technology consultant, analyst and writer. Read his blog at www.knowing.net.

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ALM's More Than Tools

Application life-cycle management, or ALM, has done a 180, which could be described as a turn for the better.

The term was first foisted upon the development world by makers of software tools for modeling, requirements, testing, SCM and writing code. Instead of using individual tools from a variety of makers, companies in the ALM

space began to offer the complete array, arguing that tighter integration between tools made life easier for development organizations. Also, these companies reasoned, if they offered a total tool package, it would mean more business for them. IBM, with its Rational suite, was a leader here. Other companies such as Borland (and its CodeGear division), Serena and Telelogic acquired their way into ALM; MKS spun its own tools into a share of that market. And with good reason: IDC expects the ALM market to grow to US\$3.3 billion by 2009.

ALM became a war of the check box. Companies would point to the offerings of others and declare, "They don't have a requirements tool. They're not ALM!"

But now, with what Forrester Research analyst Carey Schwaber is defining as "ALM 2.0," the emphasis seems to be shifting from tools to processes.

Granted, this is a market that has been seeking direction for a while. Serena, for example, changed its emphasis from ALM to IT change governance, and now is focused on Web 2.0-style mashups. Telelogic is taking a much broader view of ALM with its acquisition of Popkin Software and its emphasis on enterprise architecture. And Microsoft, which introduced Visual Studio Team System in 2005, finds itself in the serendipitous spot of supporting development processes with the tooling, but without being tied to any one particular process.

But the new players in the ALM 2.0 space aren't traditional tool companies.

CollabNet, for instance, is making a strong play, noting it has the distributed aspect of development down, and enough tools—Subversion for SCM, the CUBiT virtualization platform, issues and requirements tracking and project management—to get development shops started down the road to process-based ALM. Rally Software sees itself as the agile process hub to the application life cycle, regardless of IDE, build system and testing tools. And project management company Good Software is using the Eclipse framework to create a place where tools can plug in to its OpenUP-based process.

Industry Watch



David Rubinstein

What happened here? Did software as a service cut the legs out from underneath these traditional ALM vendors? Were customers clamoring for the ability to use a variety of tools from different companies and tie them together? Is this simply another response to the need for companies to be flexible and agile in their development processes?

Schwaber isn't sure what has driven this shift. She suspects the move toward hosted source code, such as the repository offered by CollabNet, might have had something to do with it. "People said, 'Why not put the tools there too?'"

ALM, as first defined, simply meant having tools for every part of the life cycle. Now, the definition has morphed into the glue that ties it all together. And companies such as CollabNet, Kovair and Rally have found that they can provide the glue, without providing the individual practitioner tools. "That's why you see small players getting in [the market] quickly. The barrier to entry is much lower, and it makes the market more competitive," Schwaber said.

This, of course, is not to say that there isn't a place for the tools providers. After all, the folks offering the glue aren't offering tools, so we could see a return to the cobbled,

"best-of-breed" solutions that software sellers told us wouldn't work as well as a single, integrated solution. That's been the message from MKS; its own homegrown tools had the kind of tight integration the other ALM suppliers couldn't achieve with acquisition upon acquisition.

Even IBM, with its Rational suite, couldn't get its integration act together, according to Schwaber. "Before Jazz, did IBM have integrated tools? Every year they'd say they improved the integrations, but they never quite got it done." IBM's tools, she claimed, were so difficult for customers to implement that they simply weren't bothering. "To get ALM from IBM today, you need to buy all the tools and then the services to tie them all together. That's much more costly than turning on CollabNet tomorrow."

ALM 2.0—"I coined the term, and I don't even really like it," Schwaber admitted—involves moving toward a single-repository solution. But she acknowledged this is difficult, and not likely to occur. "The better solution is a wrapper on top of all the repositories. Maybe Jazz will sit on top of ClearCase and WebSphere and Subversion," she said.

Borland, er, CodeGear, is also on board. JBuilder product manager Joe McGlynn said the development team has adopted agile practices, and now they're looking at open source tools and best practices, such as Subversion, with Continuum for continuous integration, and Bugzilla for defect tracking. Borland has created a feature set called Team Insight, which includes something called Project Assist—the glue that will hold together practitioner tools, either from Borland or the open source community. "We're creating a pluggable platform, an à la carte system," McGlynn said.

If it seems like we've been around this track before, it's simply because we have. But anything that gives development organizations choice and flexibility, and that results in better software created more quickly, with more value for the organization, should be embraced. ■

David Rubinstein is editor-in-chief of SD Times.

EVENTS CALENDAR

TechExcel Users Conference Millbrae, Calif. TECHEXCEL www.techexcel.com/conference	Oct. 1-5
Software Business 2007 Santa Clara WEBCOM COMMUNICATIONS www.softwarebusinessonline.com/sb_conf07_index.htm	Oct. 2-3
Software Test & Performance Conference Cambridge, Mass. BZ MEDIA www.stpcon.com	Oct. 2-4
Mobile Web Americas Orlando, Fla. BLACK MARLIN MULTIMEDIA GROUP www.mobilewebexpo.com	Oct. 2-4
Online Market World San Francisco THE CHASE GROUP www.onlinemarketworld.com	Oct. 3-5
VSLive Las Vegas 1105 MEDIA www.ftponline.com/conferences/vslive	Oct. 15-18
Web 2.0 Summit San Francisco O'REILLY MEDIA www.web2summit.com	Oct. 17-19
Global Six Sigma Summit Las Vegas WCBF www.gsssa.com	Oct. 23-26
DigitalPersona Developer Summit San Francisco DIGITALPERSONA www.digitalpersona.com/developers/DevSummit07/devsummit.php	Oct. 24-26
Verify Conference Arlington, Va. DCTESTER verifyconference.com	Oct. 29-30
Business of Software 2007 San Jose RED-GATE www.businessofsoftware.org	Oct. 29-30
DevConnections Las Vegas DEVCONNECTIONS www.devconnections.com	Nov. 5-8
EclipseWorld Reston, Va. BZ MEDIA www.eclipseworld.net	Nov. 6-8
SC07 Reno, Nev. IEEE sc07.supercomputing.org	Nov. 10-16
Oracle OpenWorld San Francisco ORACLE www.oracle.com/openworld/2007/index.html	Nov. 11-15
ApacheCon US 2007 Atlanta APACHE SOFTWARE FOUNDATION www.us.apachecon.com	Nov. 12-16

For a more complete calendar of U.S. software development events, see www.bzmedia.com/calendar. Information is subject to change. Send news about upcoming events to events@bzmedia.com.

BUSINESS BRIEFS

VMware has acquired IT process orchestration software provider **Dunes Technologies** for an undisclosed sum. The Dunes orchestration platform will allow VMware to automate the VM life cycle, from requisition to decommissioning, while working alongside VMware management and automation tools, according to Raghu Raghuram, VMware's vice president of products and solutions. "With our products, VMware customers will be able to implement best practice operational processes for virtual infrastructure and ensure strict compliance with corporate IT standards and policies," said Stefan Hochuli Paychere, co-founder and CTO of Dunes. ... **Sun Microsystems'** coveted Zetabyte File System came under

legal attack on Sept. 5, when **NetApp** filed suit against Sun in a Texas U.S. District Court, alleging that Sun's file system violates NetApp patents. The company is seeking a permanent injunction against Sun to prevent it from selling products that use or are derived from ZFS. NetApp is also claiming that it does not infringe Sun patents in its own products, something Sun representatives allegedly accused the company of doing in 2006. ... **Microsoft** has acquired **Parlano**, maker of the enterprise group chat software MindAlign. Financial terms were not disclosed. Microsoft will build the technology into its Office Communications Server and Office Communicator desktop software for IM, conferencing and VoIP. ■



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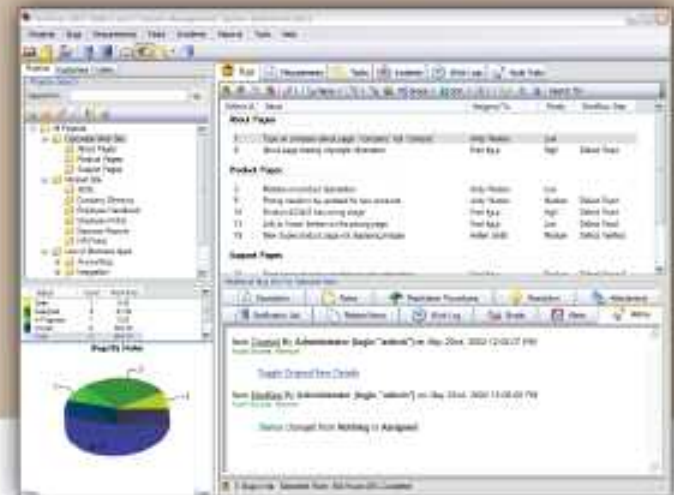
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